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CLOSURE OF GEORGE AIR FORCE BASE SAN BERNARDINO COUNTY, CALIFORNIA

Final Environmental Impact Statement

United States Air Force

May 1990

COVER SHEET

Final Environmental Impact Statement
Closure of George Air Force Base, California

Responsible Agency: United States Air Force

Action: In response to the recommendations of the Defense Secretary's Commission on Base Realignments and Closures to legislative requirements in the Base Closure and Realignment Act (Public Law 100-526), George Air Force Base (AFB) is to be closed. Ninety-two F-4E/G aircraft, materials, and personnel now at George AFB will be moved to Mountain Home AFB in Idaho. Twenty-four OV-10 aircraft will be inactivated.

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Abstract: This statement assesses the potential environmental impacts from the closure of George AFB, located in San Bernardino County, CA. The only adverse impacts expected from Base closure are to military retirees and their dependents because the Base hospital and other Base facilities will no longer be available. All other impacts from the closure of George AFB are beneficial to the environment.

EXECUTIVE SUMMARY

The action evaluated in this environmental impact statement (EIS) is the closure of George Air Force Base (AFB) in California. The closure is the result of the recommendations of the Defense Secretary's Commission on Base Realignments and Closures, from legislative requirements in the Base Closure and Realignment Act (Public Law 100-526; the "Act"), and from U.S. Air Force plans to enhance mission readiness and national security. Primarily, the closure of George AFB will involve the relocation of personnel, 92 F-4E/G aircraft, equipment, and supplies to Mountain Home AFB in Idaho and the inactivation of 24 OV-10 aircraft.

Provisions of the Act preclude the examination of any alternative actions to closure. Consequently, this EIS is required to examine only alternate methods of carrying out the closure. Because the Act requires implementation of the closure, the "no action" alternative is not analyzed. Chapter 3 presents the environmental conditions associated with the installation and its operations and will serve as the baseline against which the impacts of Base closure are judged.

In addition to the above activities directly related to the closing of George AFB, the following unit moves will also occur. Twenty-three combat-coded F-4E/G aircraft in the 37th Tactical Fighter Wing at George AFB are to be deactivated beginning in October 1989, along with a reduction of 745 personnel authorizations. These movements were planned prior to the Commission's recommendations and will occur prior to the actual closing of the Base which is scheduled for the winter of 1992. Also, there is a planned relocation of Air Warrior from George AFB to Nellis AFB in Nevada. This EIS baseline assumes that all units are currently operational as described in Chapter 3. Chapter 4 of this document assesses the impacts of the closure of the Base (withdrawal of all units). The specific impacts resulting from these previously planned movements are discussed in separate environmental assessments, but the cumulative impacts are included in this EIS. While the environmental impacts to George AFB caused by the departure of those units are within the scope of this EIS, the environmental impacts caused by the arrival of those units at the new locations are <u>not</u> part of this EIS. Those impacts will be analyzed in separate NEPA documents focusing on impacts and issues at the various receiving Bases.

A second EIS will be prepared to cover the final disposition of Base property (including potential reuse). The process also involves laws and community issues quite different from the comparatively straightforward steps involved in closure (i.e., halting operations and removing equipment and personnel).

Summarized below are the expected affects of Base closure.

- Geology — No impact.
- Soils — Beneficial effects because military activities that disturb soil at the Base will cease.

• Surface Water	Beneficial impacts during storm runoff because the potential for surface contamination at the Base will be reduced after Base closure.
• Groundwater and Water Consumption	Beneficial impacts due to reduced consumption of groundwater and a reduction in the rate of water-table lowering.
• Air Quality	Air emissions from the Base will be reduced to nearly zero, resulting in a net improvement in ambient air quality for the region.
• Biologic Environment	Overall improvements are expected in plant regrowth, along with an increase in the number and variety of wildlife, including threatened, endangered, and sensitive species.
• Cultural Resources	Beneficial impacts are expected because the potential for disturbance of cultural resources will be reduced because surface-disturbing activities will be reduced.
• Military Retirees	Adverse financial impacts are expected to eligible recipients of military health care, particularly military retirees and their dependents, because of the closure of the Base hospital. Impacts are also expected because of the elimination of some services now provided by the Base.
• Transportation	Reduction in Base-related traffic is expected to have beneficial impacts on the area's transportation network.
• Airspace Management	Beneficial impacts because the mix of high-performance fighter aircraft with general aviation aircraft in the Victor Valley will be substantially reduced.
• Noise	Beneficial impacts because noise in nearby communities from military aircraft will be virtually eliminated.
• Land Use	Potentially beneficial impacts expected because of reductions in noise and potential aircraft accidents.
• Installation Restoration Program	No impact.
• Solid Waste	Generation of solid wastes will be reduced significantly, thereby increasing the life span of the Victorville landfill; a beneficial impact.

• Hazardous Waste	Clean-up and closure of the Hazardous Waste Storage Yard, and the hazardous-waste accumulation points throughout George AFB, will have positive impacts because the potential for spills and accidents involving hazardous wastes will no longer exist.
• Wastewater	Significant reductions in the amount and type of wastewater discharged from George AFB to the Victor Valley Waste Water Treatment Facility will defer expansion of treatment facilities in this fast-growing area; a beneficial impact.
• Other [underground and aboveground storage tanks; polychlorinated biphenyls (PCBs); radon; oil/water separators; asbestos]	Either no impacts or beneficial impacts are expected from the clean-up and/or removal of the facilities and materials mentioned.

GEORGE AIR FORCE BASE CLOSURE
FINAL ENVIRONMENTAL IMPACT STATEMENT

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ACRONYMS AND ABBREVIATIONS

AAFES	Army-Air Force Exchange Services
AF	Air Force
AFB	Air Force Base
AGL	Above Ground Level
AICUZ	Air Installation Compatible Use Zone
APCD	Air Pollution Control Districts
APZ	Accident Potential Zones
AFR	Air Force Regulation
ARB	Air Resources Board
CAA	Clean Air Act
CAAQA	California Ambient Air-Quality Standards
CBRC	Commission on Base Realignments and Closures
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	cubic feet per second
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CRF	Code of Federal Regulations
CUD	Compatible Use Districts
dB	Sound level in decibels
DEIS	Draft Environmental Impact Statement
DOD	Department of Defense
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
EAC	President's Economic Adjustment Committee
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FR	Federal Register
FY	Fiscal Year
HQ	Headquarters
HUD	Housing and Urban Development (Department of)
IRP	Installation Restoration Program
Ldn	Day-night average sound level in decibels
mgpd	millions of gallons per day
MOA	Military Operations Area

MSL	Mean Sea Level
MTR	Military Training Route
NAAQA	National Ambient Air-Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NZ	Noise Zones
OEA	Office of Economic Adjustment
ORV	Off-Road Vehicle
PCB	polychlorinated biphenyls
ppm	parts per million
ppb	parts per billion
PM10	Particulate matter less than 10 microns in diameter
POL	Petroleum, oil, and lubricants
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SEDAB	Southeastern Desert Air Basin
SHPO	State Historic Preservation Officer
TAC	Tactical Air Command
TDS	Total Dissolved Solids
TCE	trichloroethylene
TFW	Tactical Fighter Wing
TSCA	Toxic Substances Control Act
TSP	Total Suspended Particulates
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
$\mu g/m^3$	micrograms per cubic meter
VVWTA	Victor Valley Waste Water Treatment Authority

CHAPTER 1.0 - DESCRIPTION OF AND NEED FOR THE ACTION

1.1 INTRODUCTION

The Defense Secretary's Commission on Base Realignments and Closures ("Commission") was chartered on May 3, 1988, by the Secretary of Defense to recommend military installations within the United States, its commonwealths, territories, and possessions for realignment and closure. Subsequently, the Base Closure and Realignment Act (Public Law 100-526, October 24, 1988, the "Act") endorsed the findings of the Secretary's Commission and required the Secretary of Defense to implement its recommendations unless he rejected them in their entirety or the Congress passed (and the President signed) a Joint Resolution disapproving the Commissions's recommendations.

The primary criteria used by the Commission to identify the candidate Bases was the military value of the installation. However, cost savings were also considered, as were the current and projected plans and requirements for each military service. Lastly, the Commission focused its review on military properties and their uses, not military units or organizational/administrative issues.

On December 29, 1988, the Commission recommended the realignment and closure of 145 military installations (Report of the Defense Secretary's Commission on Base Realignments and Closures, 1988). Of this number, 86 will be closed completely, five are to be partly closed, and 54 will increase or decrease (realignment) as units and activities are relocated.

On January 8, 1989, the Secretary of Defense approved the Commission's recommendations and announced that the Department of Defense would implement them. The Congress did not pass a Joint Resolution disapproving the recommendations within the time allotted by the Act (Public Law 100-526).

The Act requires the Secretary of Defense, as a matter of law, to implement the closures and realignments recommended by the Commission. Implementation must be initiated by September 30, 1991, and must be completed no later than September 30, 1995. Hence, the decision to close George Air Force Base (George AFB) has already been made.

The Base Closure and Realignment Act requires that the implementing actions conform to the provisions of the National Environmental Policy Act of 1969 (NEPA), as implemented by regulations of the President's Council on Environmental Quality (CEQ). In addition, this Environmental Impact Statement (EIS) on the closure of George AFB also conforms to Air Force Regulation (AFR) 19-2, which implements both NEPA and CEQ regulations.

This EIS addresses only the environmental impacts from the closure of George AFB (including adverse and beneficial impacts). This EIS does not address issues of

Base reuse. Issues related to reuse of the Base will be addressed in a second EIS referred to as the "Reuse EIS" [54 FR 6255 (February 8, 1989)].

The Base Closure and Realignment Act specifically modified the requirements of NEPA to the extent that the environmental analyses in this EIS will not discuss:

- The need for closing or realigning a military installation selected for closure or realignment by the Commission;
- The need for transferring functions to another military installation that has been selected as the receiving installation; or
- Alternative military installations to those selected.

The Air Force's Installation Restoration Program (IRP), covering restoration of waste sites at Air Force installations, is independent of Base closure and beyond the scope of this EIS (the IRP will continue to operate despite the closure of George AFB). The IRP is addressed only to the extent that it is interrelated to closure actions and associated potential impacts.

1.2 PLANNING AND SCOPING

A Notice of Intent to prepare an EIS for the closure of George AFB was published in the Federal Register on February 8, 1989 (54 FR 6255). Press releases, other announcements, and letters were sent to Federal, State, and local agencies and civic leaders apprising them of the pending closure. A scoping meeting, consisting of one afternoon and one evening session, was held at the Holiday Inn in Victorville, CA, on March 14, 1989. The purpose of the meeting was to receive comments on the Closure EIS, as well as comments on the Reuse EIS even though the Reuse EIS will be prepared at a future date. Written comments were also accepted for 60 days after the Notice of Intent was published in the Federal Register.

Many issues related to the closure and reuse of George AFB were raised during the scoping process. Issues raised that are addressed in this Closure EIS include the following:

- Effects that Base closure will have on the clean-up of waste sites, as well as the costs and schedule for clean-up.
- Clean-up of contaminated groundwater.
- Existing air-quality conditions and the effects that Base closure will have on air quality.
- Modification of existing permits and need for additional permits.
- Compliance with a Victor Valley Wastewater Reclamation Authority Order requiring corrective action for a pre-treatment plant on George AFB.

- Ways to enhance existing wetlands.
- Existing noise conditions and the effects that Base closure will have on the noise environment.
- Effects to Mojave River and wildlife from reductions in groundwater withdrawals and waste-water discharges after Base closure.
- Deficiencies of Base water-supply.
- Effects that closure will have on Department of Defense ranges north of George AFB.
- Impacts to military retirees and their dependents from closure of the Base hospital.

Issues raised during the scoping process that will be addressed in the Reuse EIS include the following:

- Reuse possibilities for George AFB.
- Socioeconomic impacts including such things as expected loss of tax revenues, housing and school impacts, and the loss of employment from Base closure under the worst-case assumption that no beneficial impacts would occur from Base reuse.

1.3 PUBLIC COMMENTS ON THE DRAFT EIS AND CLARIFICATIONS AND CORRECTIONS TO THE TEXT

The Draft EIS on the closure of George AFB was issued to the public on December 21, 1989. Public comments were accepted through February 13, 1990. Eighteen letters were received during the public comment period. A public hearing on the Draft EIS was held on January 30, 1990, in Victorville, CA. Seven of the approximately 40 people who attended the public hearing made comments on the Draft EIS.

Copies of each letter, as well as the transcripts of the public hearing, are contained in Appendix A. Numbers along the right-hand margin of the letters and transcripts represent a single comment or question. Responses to each of the 50 comments/questions are included in Appendix A.

Since issuance of the Draft EIS, a few changes to the closure plans have been announced by the Air Force. In addition, several modifications of, and corrections to, the Draft EIS have been made in this Final EIS. The corrections, clarifications, and modifications to the Draft EIS are relatively minor, and they do not significantly affect the analyses or conclusions in the Draft EIS. All these changes to the Draft EIS are described in Appendix B and they have been incorporated into this Final EIS.

1.4 RELATED ENVIRONMENTAL STUDIES

As already mentioned, this EIS addresses only those issues related to Base closure. Issues related to the disposal and reuse of the Base will be addressed in the Reuse EIS.

Closure of George AFB will require that some personnel and aircraft and equipment now at George AFB be transferred to Mountain Home AFB in Idaho. Characterization of the environmental impacts that may be caused at this receiving Bases from closure of George AFB will be addressed in a separate document prepared pursuant to the National Environmental Policy Act (NEPA) on the realignment of that Base.

At the time of the closure decision, the Air Force was already scheduled to deactivate 23 combat-coded F-4E/G aircraft stationed at George AFB. George AFB has prepared an Environmental Assessment and a Finding of No Significant Impact on this force reduction (George Air Force Base, 1989a). In addition, the Air Warrior program at George AFB is scheduled for relocation to Nellis AFB in Nevada; an Environmental Assessment on the impacts of this relocation has been prepared by staff at George AFB.

1.5 RELEVANT FEDERAL, STATE, AND LOCAL STATUTES, REGULATIONS, AND GUIDELINES

The following regulations relate to the closure of George AFB:

Federal

- **National Environmental Policy Act (NEPA).** Consider environmental factors through a systematic interdisciplinary approach.
- **Regulations of the President's Council on Environmental Quality (CEQ).** CEQ administers the NEPA process.
- **Endangered Species Act.** Conserve ecosystems for the use of endangered or threatened species.
- **National Historic Preservation Act.** Protects districts, buildings, sites, and objects that are important to an understanding of American history.
- **Clean Water Act.** Regulates the discharge of toxic and waste materials into waters of the United States.
- **Clean Air Act.** Regulates emissions of air pollutants that may affect public health and welfare, crops, livestock, and property.
- **Resource Conservation and Recovery Act (RCRA).** Regulates the disposal of hazardous wastes.

- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA/Superfund), as amended by the Superfund Amendments and Reauthorization Act (SARA).** Provides for the clean-up of hazardous-waste disposal sites, and for compensation, liability, and emergency response for hazardous substances released into the environment.

- **Toxic Substance Control Act (TSCA).** Regulates the use of certain chemical substances to protect human health and the environment.

- **Federal Insecticide, Fungicide, and Rodenticide Act.** Regulates the use of pesticides.

- **Executive Order 12372: Intergovernmental Review of Federal Programs.** Provides an opportunity to State and local governments for consultation for Federal financial assistance or direct Federal development.

Air Force

- **Environmental Impact Analysis Process (EIAP; Air Force Regulation AFR 19-2).** Provides specific procedural requirements for Air Force implementation of NEPA.

- **Pollution Abatement and Environmental Quality (Air Force Regulation AFR 19-1).** Specifies policies and assigns responsibilities for the development of an organized, integrated, multidisciplinary environmental-protection program to ensure that the Air Force conducts its activities in a manner that protects and enhances environmental quality.

- **Environmental Pollution Monitoring (Air Force Regulation AFR 19-7).** Establishes a program to monitor pollutants at Air Force installations.

- **Interagency and Intergovernmental Coordination of Land, Facility, and Environmental Plans, Programs, and Projects (Air Force Regulation AFR 19-9).** Establishes regulations requiring inter-governmental and inter-agency coordination.

- **Conservation and Management of Natural Resources (Air Force Regulation AFR 126-1).** Establishes policies, procedures, and functional responsibilities for managing and conserving soil, water, forest, fish, wildlife, and outdoor recreation resources on Air Force lands.

- **Natural Resources Land Management (Air Force Regulation AFR 126-2).** A program for the development, improvement, maintenance, and conservation of the real property of Department of Defense installations.

State

- **California Air Pollution Control Laws (as implemented by the San Bernardino County Air Pollution Control District).** Protects and enhances the air quality of the desert areas of San Bernardino County by assuring compliance with air-quality standards, regulating stationary sources, and administering special air-quality programs.

- **California Water Code (Divisions 1 and 2); California Administrative Code (Title 23, Chapter 3).** Protects groundwater resources and users by requiring all new users to obtain a permit to appropriate groundwater.

- **California Administrative Code (Title 22, Division 4, and Title 23, Chapter 3); Porter-Cologne Water Quality Control Act and related Code Sections; Regulations Concerning Waste Discharge Requirements and the National Pollutant Discharge Elimination System (State Water Resources Control Board, July 1983); the Toxics Pits Cleanup Act; California Health and Safety Code (Section 25288 et seq.).** Establishes regulatory programs covering, among other things, hazardous waste disposal to land; underground storage tank program; surveillance and monitoring; and water discharge requirements.

- **California State Department of Health Services Hazardous Waste Control Law (Health and Safety Code Division 20, Chapter 6.5, Section 25100 et seq.); California Hazardous Waste Control Regulations (California Administrative Code Title 22, Division 4, Chapter 30, Section 66011 et seq.).** Enforces State hazardous-waste-control laws and regulations, particularly as they relate to the use, storage, transportation, treatment, and disposal of hazardous materials and waste.

- **California Safe Drinking Water Act; Domestic Water Quality and Monitoring Regulations.** Assures that domestic water supplies meet standards of quality and reliability.

Local

- **San Bernardino County Code Division 8 to Title 3.** Specifies standards of operation for underground storage tanks.

CHAPTER 2.0 - ALTERNATIVES INCLUDING THE ACTION

The Air Force plans to close George AFB in the winter 1992. At the time that the decision to close the Base was made (January 5, 1989), the Air Force was already scheduled to reduce the number of aircraft at George AFB as part of an overall plan to remove aging aircraft from service and to reduce operating costs. Accordingly, 23 combat-coded F-4E/G aircraft in the 37th Tactical Fighter Wing are to be deactivated and retired beginning in October 1989 along with a reduction of 745 personnel authorizations. George AFB has prepared an Environmental Assessment and a Finding of No Significant Impact on this force reduction (George Air Force Base, 1989a). In addition, the Air Warrior program at George AFB will be relocated to Nellis AFB in Nevada. Approximately 39 personnel will be involved in the move. George AFB has prepared an Environmental Assessment on the effects of relocating Air Warrior.

2.1 DESCRIPTION OF THE ACTION

To close George AFB, the remaining 92 F-4E/G aircraft at the Base, including support personnel and equipment (the 35th Tactical Training Wing and the 37th Tactical Fighter Wing), will be relocated to Mountain Home AFB in Idaho. The 24 OV-10 aircraft at the Base, including support personnel and equipment (the 27th Tactical Air Support Squadron), will be inactivated beginning June 1990. Relocation of the 92 F-4E/G aircraft, personnel, and equipment to Mountain Home AFB is scheduled for late 1991. According to Public Law 100-526, Base closure must be completed no later than September 30, 1995. Table 2.1-1 shows the estimated manpower reductions at George AFB leading to Base closure in the winter of 1992.

Airspace for which George AFB has scheduling responsibilities includes one Military Operations Area (Baker MOA) for air-to-air combat training, and two Restricted Areas (R-2502N and R-2509) for air-to-ground bombing and gunnery training. The Base also has responsibility for 10 Military Training Routes (MTRs) for low-level flight training, and one Aerial Refueling Route (AR-625) to support range-training operations (Thackery, 1989, personal communication). These areas and routes are located in San Bernardino, Los Angeles, Kern, and Inyo Counties, California, and in western Nevada. Most of these training areas are used primarily by George AFB-assigned aircraft; however, other military users also have a continuing need for this airspace. Transfer of scheduling responsibilities for this airspace upon closure of George AFB will be determined by the Department of Defense (DOD) on the basis of training needs of other DOD units.

Detailed plans for the closure of George AFB have not yet been developed. The Base will be closed in phases as indicated by the personnel reductions outlined in Table 2.1-1. Several methods, or a combination of methods, could be used to transport Air Force supplies, equipment, personnel (and their belongings) to Mountain Home AFB, including truck, freight train, and airplane. The preferred transport mode, or the mix of transport modes, has not yet been determined, and will depend on cargo packaging, shipment schedules, and costs. The Air Force will coordinate its Base closure efforts with

TABLE 2.1-1

CURRENT MANPOWER AT GEORGE AFB AND ESTIMATED FUTURE REDUCTIONS ASSOCIATED WITH BASE DRAWDOWN AND CLOSURE[1]

Manpower Category	Current Status	Previously Planned Deactivation of 23 F-4E/G	Air Warrior Relocation to Nellis AFB in Nevada	Deactivation of 24 OV-10 Aircraft	Relocation of 92F-4E/G Aircraft to Mountain Home AFB in Idaho	Scheduled Closure of George AFB
		Oct. 1989	Jan. 1990	June 1990	Oct. 1991 June 1992[2]	Oct. 1992[3]
Officers	632	532	527	448	93	0
Enlisted	4,655	3,935	3,903	3,497	874	0
Civilian	475	444	442	425	245	0
TOTAL	5,762	4,911	4,872	4,370	1,212[4]	0

(1) The dates in the table represent the first month of the fiscal quarter for which each action is programmed. The manpower authorizations will be dropped on the last day of the quarter. The personnel and aircraft will leave throughout the quarter.

(2) These units will move out over a 9 month period, with one squadron and approximately one third of the people leaving every three months.

(3) A caretaker force of approximately 100 people will remain until the Base facilities are turned over to a new user. The makeup of this group has not been determined at this time.

(4) This is the number of manpower authorizations saved (jobs no longer needed) with Base closure; these authorizations will not be transferred to a new location.

Caltrans regarding any transport of heavy equipment along California State highways. Utilities, Rights-of-Way, easements, etc., will be maintained until a decision is made regarding reuse of the Base. Transfer of land, easements, etc., to other Federal agencies is a reuse issue that will be discussed in the reuse EIS.

The Air Force had expected that some of the World War II buildings at George AFB would be demolished in preparation for Base closure. George AFB submitted a justification package to Air Force HQ for final approval for each building or structure requested for demolition. Since issuance of the Draft EIS, the entire building demolition program has been canceled; no buildings will be demolished.

The golf course, and the riparian habitat developed from watering this course, will be maintained by the Air Force until a new user is in place. For the purposes of this EIS, it is assumed that all assets on the Base that are not transferred to realigned Bases will continue to be maintained after Base closure to avoid structural and(or) mechanical damage to these assets. Maintenance and security will be provided by a caretaker force until the property has been transferred to a new user. The size of the caretaker force is not known at this time. The function of the force will be to maintain the grounds, buildings, and other assets, as well as providing security against trespass and vandalism. Until the property and assets are transferred to a new user, the caretaker force will remain at the Base. If trespass becomes a problem after Base closure, the Air Force will increase security patrols.

2.2 ALTERNATIVES

The provisions of the Base Closure and Realignment Act preclude the examination of alternatives to Base closure; hence, no alternatives to Base closure, including the "No Action" alternative, are discussed further in this EIS (see Section 1.1). Only alternative analyses are required in this EIS that are associated with clearly-defined alternative strategies for actually closing the Base and transporting personnel and materials to the receiving Base, and when actions other than the Commission's recommendations are included in the closure.

As stated in Section 2.1, detailed plans for the closure of George AFB have yet to be developed, except that closure is scheduled to be complete by the winter of 1992. The environmental impacts caused by alternative modes of transport of supplies, equipment, personnel (and their belongings) from George AFB to Mountain Home AFB -- whether by truck, train, plane, or some combination of the three -- are not sufficiently different among the transport modes to warrant separate analyses in this EIS. Furthermore, the environmental impacts of personnel reductions at dates other than those listed in Table 2.1-1 are also not sufficiently different to warrant separate analyses in this EIS.

2.3 SUMMARY OF IMPACTS

Table 2.3-1 is a summary of the environmental impacts that are expected to occur from the closure of George AFB.

TABLE 2.3-1

SUMMARY OF ENVIRONMENTAL IMPACTS DUE TO THE CLOSURE OF GEORGE AFB

Subject Area	Impact
• Geology	No impact.
• Soils	Beneficial effects because military activities that disturb soil at the Base will cease.
• Surface Water	Beneficial impacts during storm runoff because the potential for surface contamination at the Base will be reduced after Base closure.
• Groundwater and Water Consumption	Beneficial impacts due to reduced consumption of groundwater and a reduction in the rate of water-table lowering.
• Air Quality	Air emissions from the Base will be reduced to nearly zero, resulting in a net improvement in ambient air quality for the region.
• Biologic Environment	Overall improvements are expected in plant regrowth, along with an increase in the number and variety of wildlife, including threatened, endangered, and sensitive species.
• Cultural Resources	Beneficial impacts are expected because the potential for disturbance of unidentified cultural resources will be reduced because surface-disturbing activities will be reduced.
• Military Retirees	Adverse financial impacts are expected to eligible recipients of military health care, particularly military retirees and their dependents, because of the closure of the Base hospital. Impacts are also expected because of the elimination of some services now provided by the Base.
• Transportation	Reduction in Base-related traffic is expected to have beneficial impacts on the area's transportation network.
• Airspace Management	Beneficial impacts because the mix of high-performance fighter aircraft with general aviation aircraft in the Victor Valley will be substantially reduced.

TABLE 2.3-1 (Continued).

SUMMARY OF ENVIRONMENTAL IMPACTS DUE TO THE CLOSURE OF GEORGE AFB

Subject Area	Impact
Noise	Beneficial impacts because noise in nearby communities from military aircraft will be virtually eliminated.
Land Use	Potentially beneficial impacts expected because of reduction in noise and potential aircraft accidents.
Installation Restoration Program	No impact.
Solid Waste	Generation of solid wastes will be reduced significantly, thereby increasing the life span of the Victorville landfill; a beneficial impact.
Hazardous Waste Storage	Clean-up and closure of the Hazardous Waste Storage Yard, and the hazardous-waste accumulation points throughout George AFB, will have positive impacts because the potential for spills and accidents involving hazardous wastes will no longer exist.
Wastewater	Significant reductions in the amount and type of wastewater discharged from George AFB to the Victor Valley Waste Water Treatment Facility will defer expansion of treatment facilities in this fast-growing area; a beneficial impact.
Other [underground and aboveground storage tanks; poly-chlorinated biphenyls (PCBs); radon; oil/ water separators; asbestos]	Either no impacts or beneficial impacts are expected from the clean-up and/or removal of the facilities and materials mentioned.

CHAPTER 3.0 - DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 HISTORY AND MISSION OF GEORGE AIR FORCE BASE

George AFB is located is southern California (Figure 3.1-1). The site plan of the Base is shown in Figure 3.1-2.

George AFB was activated on October 1, 1941, under the name Victorville Army Airfield. The first contingent of men arrived on November 24, 1941, and training began in February of 1942. Advanced twin-engine training for pilots was conducted using AT-6, AT-9, and AT-11 aircraft. Training for bombardiers used AT-11 and BT-13 aircraft. The first class of cadets graduated on April 24, 1942. By 1943, more than 1,000 pilots had completed training at the Base.

In November 1942, the twin-engine pilot school was replaced by a three-week advanced glider-pilot school. Pilots were trained using the CG-4A, with emphasis on night flying, spot landing, and flying cargo. The glider school was transferred to Lubbock, Texas, in April of 1943. Pilot training continued throughout 1943 on aircraft including the C-60A, C-47, L-3C, L-4A, L-4E, and the PT-15, in addition to AT-11s and B-13s. In March 1944, the training program was expanded to include the single-engine P-39 Aircobra. By October 1944, when the school was transferred to Luke Field in Arizona, 1,887 P-39 pilots had completed their training. The World War II years also included some training with B-24s and B-25s.

On October 12, 1945, after World War II ended, all flying operations were discontinued as part of a nationwide demobilization. The Base was placed on standby status, and on November 1, 1945, it was assigned to the Air Technical Services Command as a storage facility for B-29s, AT-7s and AT-11s. The first B-29 bombers arrived for storage on October 18, 1945. All stored aircraft, however, were removed by October 1948 following jurisdictional transfer to the Sacramento Air Materials Command.

Following the outbreak of hostilities in Korea, George AFB was reactivated under the jurisdiction of the Air Defense Command. On July 1, 1950, the 1st Fighter Interceptor Wing, flying F-86 Sabrejets, was stationed at the newly reopened field now known as George AFB in honor of Brig. Gen. Harold H. George. In November 1951, the Tactical Air Command (TAC) took control of the Base, which then contained the 131st and 146th Fighter Bomber Wings flying P-51s (George AFB is currently one of 18 TAC Bases). The transition from P-51s to T-33s began immediately after the TAC takeover of the Base, and in January of 1953, the 479th Fighter Bomber Wing absorbed the 131st Fighter Bomber Wing. The new wing gradually began the transition to F-86 Sabrejets and, by the end of 1954, to the F-100 Super Sabre. In 1953, the 479th also became the Fighter Day Wing, and its mission was changed to defense interception.

Fighter training continued at George AFB throughout the 1950s, with the F-86, T-33, F-100A, F-100C, and the F-104C. By April 1962, under the provisions contained in the Military Assistance Program and the Mutual Security Military Sales Program, instruction

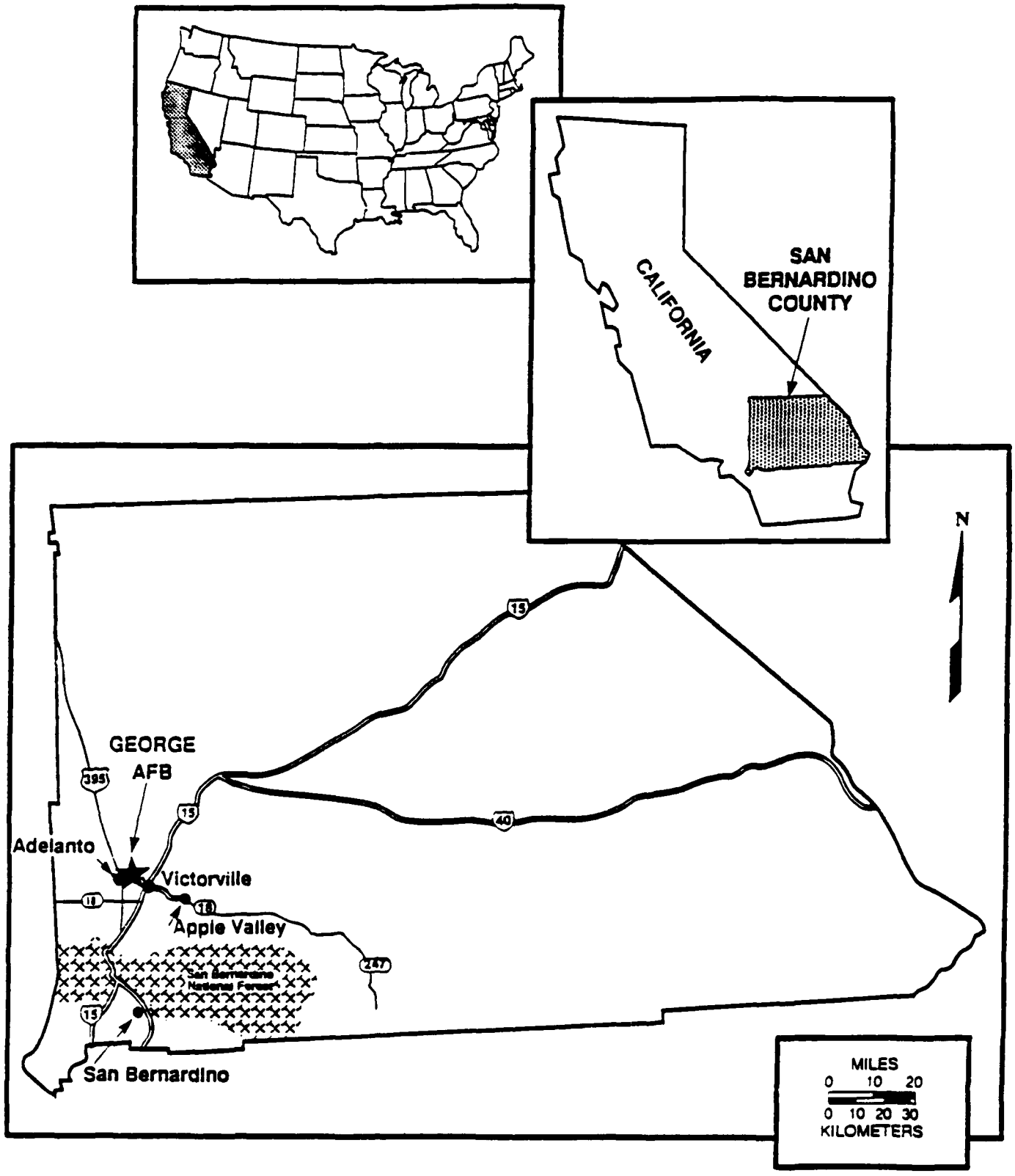


Figure 3.1-1. Regional setting of George Air Force Base.

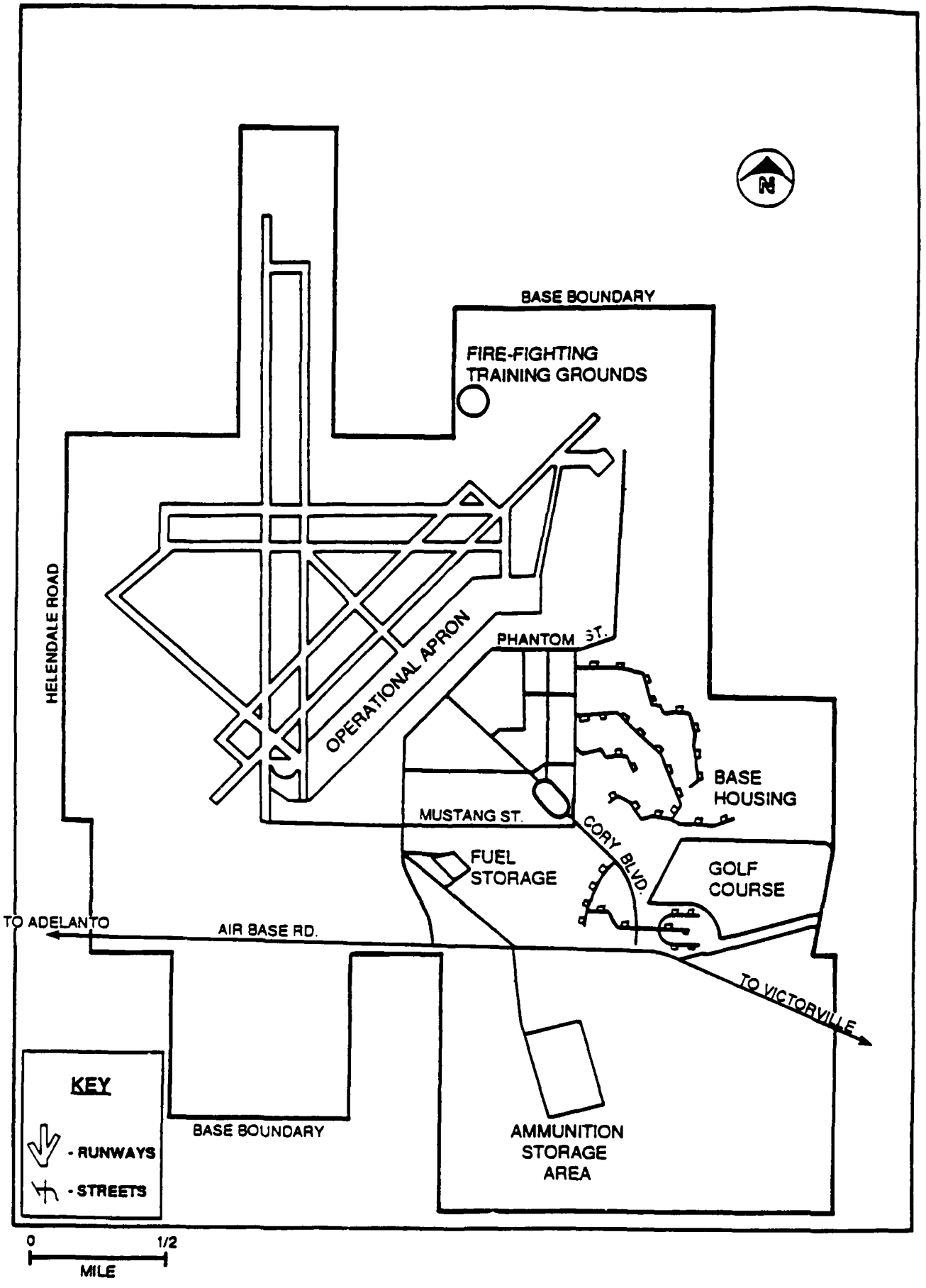


Figure 3.1-2. Site plan of George Air Force Base.

classes were begun for the training of allied pilots. The first pilots (German) received training on F-104 aircraft, and the first class graduated in May 1962. The first F-4 Phantom fighters also arrived at George AFB in 1962, with the 479th receiving its first F-4C Phantom in November 1964. By November 1967, the 479th Tactical Fighter Wing (TFW) became an all-Phantom wing.

The increasing needs and requirements of the Vietnam conflict caused the Air Force to designate George AFB as one of its major training Bases for combat-ready fighter crews, and the Base was briefly converted to a single wing under the 479th TFW. In October 1971, the 35th TFW was transferred from Phan Rang Air Base, Vietnam, to George AFB, and the host wing (479th TFW) was deactivated. Today, the 35th TFW continues its mission of training F-4 aircrews.

The first F-104G Wild Weasel (surface-to-air missile suppression) arrived in 1973 and the first F-4C Wild Weasel in 1975. The first F-4G Advanced Wild Weasels arrived in April 1978, making the 35th Wing the first unit in the Air Force to have both operational and training missions. By 1980, George AFB had become an all-Phantom unit. On March 30, 1981, the 37th TFW was activated, assuming control over F-4G Weasel training from the 35th Wing.

Today, George AFB comprises 5,347 acres and is composed of the 35th and 37th Fighter Wings under the operational jurisdiction of the commander, 831st Air Division. The 35th TFW consists of the 20th and the 21st Tactical Fighter Training Squadrons. The 20th Squadron's primary mission is to train German aircrews. The 37th TFW consists of the 562nd Tactical Fighter Training Squadron, which provides worldwide replacement Weasel pilot training, and the combat-ready 561st and 563rd Tactical Fighter Squadrons.

George AFB consists of runways, industrial areas, family housing and dormitories, two schools, a hospital, and other support facilities (Figure 3.1-2).

3.2 GEOLOGY AND SOILS

3.2.1 Geology

Rocks at the surface of George AFB and extending to depths of about 600 feet consist of sediments shed from nearby mountains during the past several million years. The strata are flat-lying, poorly compacted, with little evidence of internal deformation. The sediments are mixtures of coarse to fine debris with wide variations in permeability, hydraulic conductivity, and other physical features that affect the movement of groundwater.

3.2.2 Soils

Much of the surface of George AFB consists of thin, residual concentrations of wind-polished, closely packed pebbles (JMM, 1988). This type of surface, called desert pavement, protects the underlying fine-grained sediments from wind erosion. Desert pavement impedes direct infiltration of rainfall to the subsurface and promotes sheet flow

and gully erosion. On those parts of the Base where the desert pavement has been disturbed by construction or other man-made disturbances, winds easily pick up and disperse the fine-grained sediments.

Numerous soil samples have been collected at George AFB under the Air Force's Installation Restoration Program. Data from these sampling programs indicate that soil contamination exists at several places on the Base, as described in Section 3.11.

3.3 WATER RESOURCES

3.3.1 Surface Water

The Mojave River is the major surface drainage in the vicinity of George AFB (Figure 3.3-1). The river channel is about 125 miles long. Surface flow occurs principally after heavy thunderstorms. Otherwise, flow is intermittent due to the arid climate.

At its closest point, the Mojave River channel lies about one-quarter mile east of the Base. On slopes leading from the Base to the Mojave River, well-developed gullies have been cut during heavy rains and flash floods. These gullies are important areas of water recharge to the subsurface (JMM, 1988), as well as potential pathways for surface contaminants on the Base to enter the groundwater.

The overall pattern of surface drainage at the Base is shown on Figure 3.3-1. Runoff from the flightline and the industrial and office areas is directed through storm drains, culverts, and ditches to an outfall ditch on the northeast side of the Base; this drainage reaches the river only during large storms. Storm runoff from residential areas and from the east part of the Base flows eastward directly into the channel of the Mojave River. Storm drainage over much of the southeastern part of the Base flows northward into the industrial and flightline storm-runoff system, which ultimately flows into the outfall ditch mentioned above.

The quality of surface water in the area is good, generally containing less than 400 parts per million (ppm) total dissolved solids (TDS) (CH_2M-HILL, 1982). Although this water is "hard," average TDS values fall within the U.S. Environmental Protection Agency's (EPA) drinking water standards (JMM, 1988). No samples of surface runoff have been taken at George AFB; hence, no water-quality information exists for surface waters that flow off the Base during heavy storms. In view of the assorted activities that occur at the Base (such as jet and vehicle maintenance), surface waters that drain the Base during times of heavy precipitation would probably be contaminated with a variety of materials.

3.3.2 Groundwater

Subsurface water-bearing units (aquifers) at and in the vicinity of George AFB consist of poorly-compacted sediments, plus river gravels associated with the Mojave River (JMM, 1988). Groundwater flows from south to north-northeast, paralleling the flow

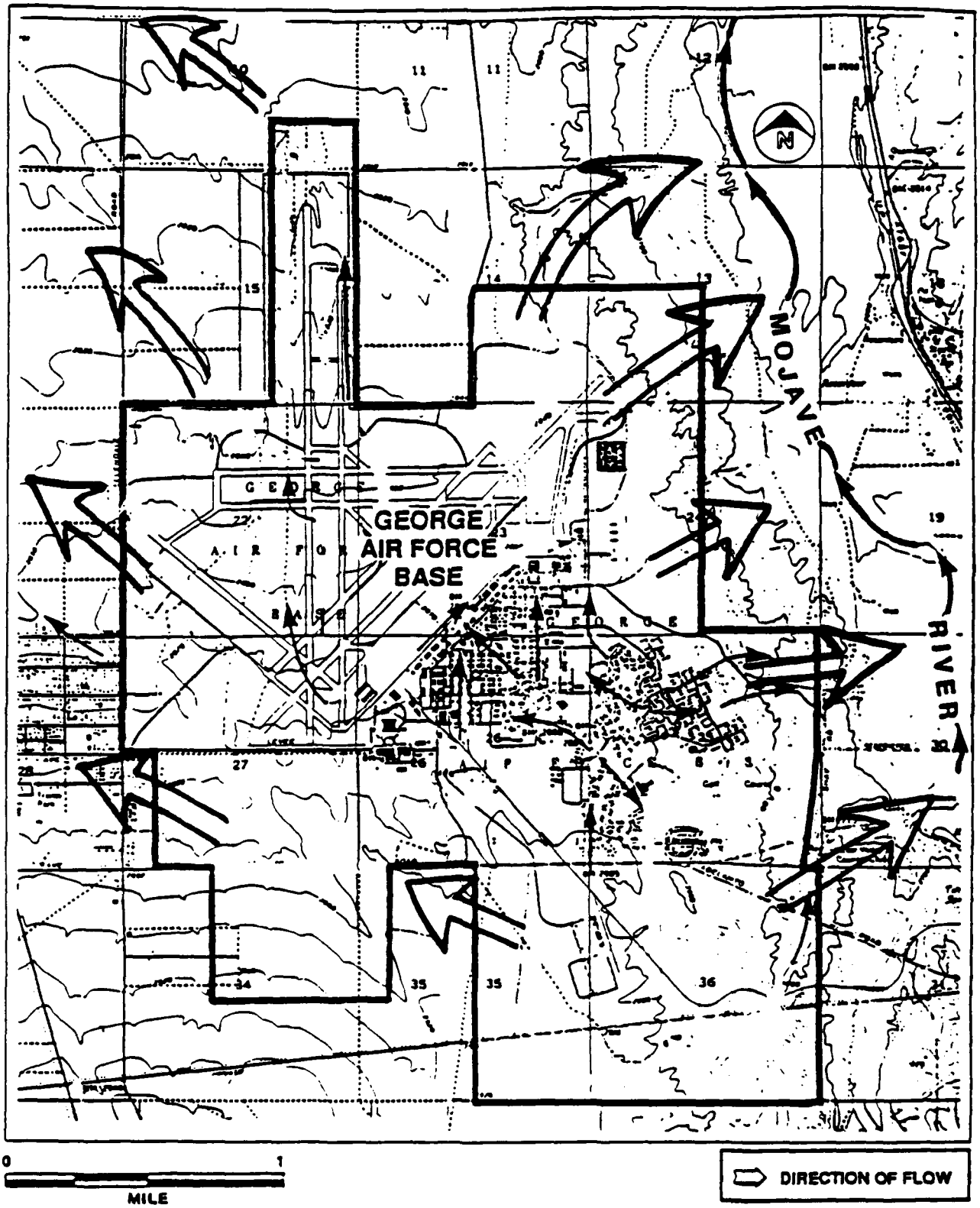


Figure 3.3-1. Surface drainage at George Air Force Base.

(Source: CH2M-Hill, 1982)

of the Mojave River and toward areas of low elevation. Depth to groundwater is generally from 70 to 240 feet below the surface. Groundwater beneath the bed of the Mojave River is commonly less than 50 feet below the surface.

The most recent report on the hydrology of George AFB (JMM, 1988) divided the water-bearing rocks at the Base into an "upper" aquifer and a "regional" aquifer. The "upper" aquifer is defined as all materials above 2,600 feet mean sea level that contains groundwater (the elevation of the Base ranges from about 2,880 to 2,860 feet). Water in this aquifer percolates downward with a strong vertical gradient; zones of perched water above the upper aquifer may exist (water-bearing sediments that lie above the groundwater table; JMM, 1988). The "regional" aquifer, at elevations below 2,600 feet mean sea level, is a 300-foot-thick zone of horizontal groundwater flow associated with a regional groundwater-flow system (JMM, 1988).

Recharge to the groundwater system from precipitation near George AFB is minor. Most recharge to the groundwater system occurs along the flanks of distant mountain ranges, such as the San Gabriel and San Bernardino Mountains 40 miles south of the Base, where precipitation is heavy and evaporation is relatively low (SAIC, 1987).

3.3.3 Water Supply and Use

Water for George AFB is supplied by a well system located adjacent to the Mojave River. The wells are on land owned by the City of Adelanto and leased by the U.S. Government on behalf of George AFB. The well field consists of seven wells that pump water at depths ranging from 300 to 600 feet below the surface from the regional aquifer system (SAIC, 1987).

The quality of the Base's drinking-water supply meets all Federal drinking water standards. TDS ranges from 190 to 315 ppm (CH_2M-HILL, 1982; recent records on file at George AFB). The results of quarterly water-monitoring indicate that concentrations of contaminants are below the detection limits or within acceptable ranges according to the California Safe Drinking Water Act and California Health and Safety Code AB 1803 (monitoring results for 1988 are on file at George AFB). Groundwater contamination at George AFB has been documented through investigations under the Air Force's Installation Restoration Program, as described in Section 3.11.

Total water production from the George AFB well field in 1988 for municipal, industrial, and irrigation purposes was 3,642 acre-feet (1.19 billion gallons; George Air Force Base, 1989a). Water demands at George AFB in 1988 varied from a low of 1.5 million gallons per day in January to a high of 6.5 million gallons per day in August (George Air Force Base, 1989a).

George AFB and the City of Adelanto are jointly licensed to pump 2.5 cubic feet per second (cfs) of water from what is referred to as the Mojave River Basin. This rate, however, does not provide even one-quarter of the Base's peak summer water needs. In June 1988, the California State Water Resources Control Board determined that an overdraft situation exists within the Mojave River Basin. This determination resulted in

the denial of many pending water-rights requests, including a 1985 application by George AFB for an average monthly pumping rate of 5.4 cfs.

George AFB submitted a second application in December 1987 requesting a maximum monthly pumping rate of 14 cfs (water rights in California are granted for a maximum rate, rather than an average rate as requested in the original application submitted in 1985). Approval of this application is contingent upon George AFB providing data to the Water Resources Control Board that the requested amount of water is available at the point of diversion. Studies are being conducted in support of the Base's application.

3.4 AIR QUALITY

Air quality is characterized by the concentration of various pollutants in the atmosphere. Units of concentration are usually expressed in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and prevailing meteorological conditions.

The principal Federal legislation that governs ambient air quality is the Clean Air Act (Public Law 88-206, as amended). Federal ambient air-quality standards specify the maximum allowable concentrations of various atmospheric pollutants. National ambient air-quality standards (NAAQS) may not be exceeded more than once per year. Annual averages are never to be exceeded. Under the Clean Air Act, the States can also establish standards that are at least as stringent as the Federal standards. California has done so. The NAAQS and CAAQS have been established for those pollutants listed in Table 3.4-1, referred to as "criteria" pollutants. The significance of a pollutant concentration is determined by comparing it to the appropriate NAAQS and CAAQS.

In addition to the NAAQS for criteria pollutants, Federal standards exist for air pollutants that are considered to be more dangerous to the public health than the criteria pollutants covered by the NAAQS. Although more than 20 compounds have been identified by the U.S. Environmental Protection Agency (EPA) as candidates under the National Emission Standards for Hazardous Air Pollutants (NESHAP) program, only eight pollutants have been regulated to date; arsenic (inorganic), asbestos, beryllium, mercury, vinyl chloride, benzene, Radon-222, and radionuclides.

The EPA has designated all areas of the United States as having air quality that is either better than the NAAQS (referred to as attainment areas), worse than the NAAQS (referred to as nonattainment areas), or as unclassified. A nonattainment designation means that a primary NAAQS has been exceeded more than three discontinuous times in three years in a given area.

George AFB lies within the Southeastern Desert Air Basin (SEDAB), which is currently designated nonattainment for ozone. The area within a five-mile radius of the Victorville air-quality monitoring station is also in nonattainment for total suspended particulates (TSP). Although the PM_{10} NAAQS (particulate matter less than 10 microns

Table 3.4-1 (Page 1 of 2)
National and California Ambient Air Quality Standards[a]

Pollutant	Averaging time	State standards[c,d]	National standards: Primary[d,e]	National standards: Secondary[d,f]
Oxidant (ozone)	1-hour	0.10 ppm (196 $\mu g/m^3$)	0.12 ppm (235 $\mu g/m^3$)	Same as Primary
Carbon monoxide	8-hour	9.0 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)	—
	1-hour	20.0 ppm (25 mg/m^3)	35.0 ppm (40 mg/m^3)	—
Nitrogen dioxide	Annual	—	0.05 ppm (100 $\mu g/m^3$)	Same as Primary
	1-hour	0.25 ppm (470 $\mu g/m^3$)	—	
Sulfur dioxide	Annual	—	0.03 ppm (80 $\mu g/m^3$)	
	24-hour	0.05 ppm[g] (131 $\mu g/m^3$)	0.14 ppm (365 $\mu g/m^3$)	—
	3-hour	—	—	0.5 ppm (1300 $\mu g/m^3$)
	1-hour	0.25 ppm (655 $\mu g/m^3$)	—	—
PM_{10}	Annual	30 $\mu g/m^3$	50 $\mu g/m^3$	Same as Primary
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$	Same as Primary
Sulfates	24-hour	25 $\mu g/m^3$	—	—
Lead	30-day	1.5 $\mu g/m^3$	—	—
	calendar quarter	—	1.5 $\mu g/m^3$	Same as Primary
Hydrogen sulfide	1-hour	0.03 ppm (42 $\mu g/m^3$)	—	—
Ethylene	8-hour	0.1 ppm	—	—
	1-hour	0.5 ppm	—	—
Vinyl chloride	24-hour	0.01 ppm (26 $\mu g/m^3$)	—	—
Visibility reducing particles	1 observation	In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70 percent[i]	—	—

[a] Standards from California Air Resources Board

Table 3.4-1 (Page 2 of 2)
National and California Ambient Air Quality Standards[a]

[b] National Standards, other than those based on annual averages or annual geometric means, are not to be exceeded more than once per year.

[c] California standards are values that are not to be equalled or exceeded with the exception of the CO standards, PM_{10} standards, and 1-hour SO_2 standards which are not to be exceeded only.

[d] Concentration expressed first in units in which standard was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of Hg (1013.2 millibars); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[e] National Primary Standards express the level of air quality necessary to protect the public health from any known or anticipated adverse effects of a pollutant.

[f] National Secondary Standards express the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] (UV fluorescence) In presence of oxidant in excess of state 1-hour standard or in presence of particulates in excess of state 24-hour standard.

[h] The 24-hour TSP standard is only applicable to California 24-hour SO_2 combination standard (see footnote [g])

[i] Prevailing visibility is defined as the greatest visibility that is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.

in diameter) recently superseded the NAAQS for TSP, the attainment designation for particulates has yet to be revised for the SEDAB. The remainder of the area surrounding George AFB is in attainment for CO and NO_2, and unclassified for SO_2 and TSP. Pollutants in rural areas are often designated as unclassified when insufficient data exist for the EPA to determine attainment status.

Air quality in the Victor Valley is generally good. The main sources of air pollutants are mining (particulates), cement production [nitrogen oxides (NO_x) and particulates], and motor vehicles (hydrocarbons, NO_x, and CO). Adverse air-quality conditions, however, can be associated with from distant sources, such as ozone from the Los Angeles basin and the San Joaquin Valley. Ozone and other oxidants are formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving mainly NO_x and reactive hydrocarbons. Ozone concentrations tend to be more regional than other pollutants. In 1987, the Victorville air-quality monitoring station, located about five miles southeast of George AFB, recorded nine days when the ozone NAAQS was exceeded.

High concentrations of particulate matter can also occur in the Victor Valley when strong winds increase emissions of dust from man-caused activities. However, no exceedances of the 24-hour or annual NAAQS for PM_{10} were recorded in 1987 at the Victorville air-quality monitoring station.

Air pollutant emissions from all activities at George AFB in 1988 are summarized in Table 3.4-2. After the previously planned deactivation of the 23 F-4s (see Chapter 2), the emissions listed on Table 3.4-2 will be reduced by an estimated 4 percent (George Air Force Base, 1989a).

George AFB has construction and operating permits for all regulated equipment, machinery, and facilities in accordance with rules promulgated by the San Bernardino County Air Pollution Control District. New requirements for the installation of Phase I and II vapor-recovery systems on fuel-dispensing equipment were recently adopted by the San Bernardino County Air Pollution Control District. Compliance is mandated by April 1990. George AFB has requested an informal determination from the Air Pollution Control District concerning a waiver from these requirements for George AFB because of the pending Base closure.

3.5 BIOLOGICAL RESOURCES

3.5.1 Plant Resources

Eighty-six species of plants have been identified on the Base (U.S. Air Force et al., 1987). The plants can be grouped into three vegetation types. The dominant vegetation over most of the Base is the "Mojave creosote bush scrub group," which includes plants such as the creosote bush (Larrea tridentata), sweetbush (Ambrosia dumosa), cheesebush (Hymenoclea salsola), bladderpod (Isomeris arborea), indigo bush (Dalea fremontii), and Golden cholla cacti (Opuntia echinocarpa). The prevalent herbaceous plants include introduced grasses such as abu-mashi (Schismus barbatus)

TABLE 3.4-2

1988 AIR EMISSION ESTIMATES FOR GEORGE AIR FORCE BASE (IN TONS PER YEAR)

Source	Particulate Matter (PM)	Oxides of Sulfur (SO_x)	Carbon Monoxide (CO)	Total Hydrocarbons (HC)	Oxides of Nitrogen (NO_x)
Aircraft flying operations	50	20	1,650	429	462
Aircraft ground operations	1	3	57	17	15
Aerospace ground equipment	11	2	144	14	149
Heating and power production	--	--	3	1	--
Motor vehicles (military and civilian)	12	1	495	805	70
Fire-fighting practice pit	1	--	6	3	--
Surface coating	--	--	--	27	--
Fuel evaporation losses (gas station plus JP-4 tank farm)	--	--	--	165	--
Incinerator	--	--	--	--	--
TOTAL	75	26	2,355	1,461	693

(Source: George Air Force Base)

and red brome (Bromus rubens), and native grasses and herbs such as Indian ricegrass (Oryzopsis hymenoides), sandmat (Euphorbia polycarpa), and chia (Salvia columbariae). Joshua trees (Yucca brevifolia) occur in the creosote bush scrub along the west and southeast sides of the Base.

Riparian vegetation makes up the second group and contains such plants as the desert mulefat (Baccharis glutinosa). Riparian vegetation, including cottonwoods and willows, occurs in small patches along gullies on the east side of the Base; sedges and cattail rushes grow around the old George AFB wastewater percolation ponds.

The third group consists of introduced species such as Russian thistle (Salsola kali) and wild mustard (Brassica geniculata) in disturbed areas near Base housing (LSA Associates, 1988). Within this group are also ornamental species that have been planted as part of the Base landscape-management program, including hardwoods, softwoods, and evergreen trees, as well as shrubs, grasses, and other low-growing ornamentals. Areas disturbed by off-road vehicles along the unfenced southern part of the Base also contain Russian thistle and wild mustard.

3.5.2 Wildlife Resources

Wildlife populations on George AFB are at low, but stable, levels. Both diversity and abundance of wildlife are limited by a lack of adequate food, sparse ground cover which limits nesting sites, and unreliable sources of water. Wildlife on the Base is most heavily concentrated in undisturbed and slightly disturbed areas where creosote bush is in good condition, such as the northern and southeastern parts of the Base. Animal concentrations are lowest in disturbed areas where little vegetation remains, such as the housing and industrial complex, recreation areas, and the runways.

Birds are the most obvious wildlife on the Base; 75 species have been identified (U.S. Air Force et al., 1987). Among those sighted in summer are the common raven (Corvus corax), the red-tailed hawk (Buteo jamaicensis), the horned lark (Eremophila alpestris), the loggerhead shrike (Lanius ludovicianus), the house finch (Carpodacus neomexicanus), and the burrowing owl (Athene cunicularia).

Twenty-seven species of mammals have been identified on the Base (U.S. Air Force et al., 1987). The black-tailed jackrabbit (Lepus californicus), coyote (Canis latrans), Audubon cottontail (Sylvilagus aubudonii), and antelope ground squirrel (Otospermophilus beechyi) are some of the mammals active during the summer. Evidence of kit fox (Vulpes macrotis) has been reported (LSA Associates, 1988).

Thirty-two species of reptiles have been identified on the Base (U.S. Air Force et al., 1987). Among these are the side-blotched lizard (Uta stansburiana), zebra-tailed lizard (Callisaurus draconoides), California whiptail (Cnemidophorus tigris), and desert spiny lizard (Sceloporus magister).

Although no amphibians are known to occur on the Base, the western spadefoot toad (Scaphiopus hammondi) and the western toad (Bufo boreas) could occur on the Base during the spring (LSA Associates, 1988).

3.5.3 Threatened, Endangered, and Sensitive Species

On August 4, 1989, the U.S. Fish and Wildlife Service (USFWS), in an emergency action, listed the desert tortoise (Xerobates agassizii) as threatened and endangered throughout its range (Table 3.5-1). The tortoise's range generally coincides with the Mojave Desert and includes George AFB, where the tortoise is known to occur (LSA Associates, 1988).

The USFWS lists five Category-2 species that may be present on George AFB (Table 3.5-1) (Harper, 1989, personal communication). Category-2 species are those for which existing information is insufficient to warrant listing as endangered or threatened under the Endangered Species Act. The USFWS suggests that these species should be considered in the planning process for Base closure in the event they become listed or proposed for listing prior to closure of the Base.

The California Department of Fish and Game has identified numerous species that should be considered in the planning process for the closure of George AFB (Table 3.5-1) (Bleich, 1989, personal communication; Hamby, 1989, personal communication). Several of these species are also included on the Federal list.

During a biological survey of George AFB for the Gallant Eagle Exercises in 1988, three sensitive species were sighted on the Base; the burrowing owl, the desert tortoise, and LeConte's thrasher (LSA Associates, 1988). In another biological study of the Base in 1987, four sensitive species were seen; the Cooper's hawk, golden eagle (Aquila chrysaetos), prairie falcon, and Mohave ground squirrel. The 1987 study listed an additional 22 sensitive species that could occur on George AFB (U.S. Air Force et al., 1987).

3.6 CULTURAL RESOURCES AND NATIVE AMERICAN CONCERNS

3.6.1 Cultural Resources

Archaeological investigations in the vicinity of George AFB began in the 1930s, although no formal reports document these efforts or their results. From the 1970s to the present time, numerous cultural resource investigations -- chiefly surveys -- have examined the resources on the Base and in surrounding areas (Hearn et al., 1976; Hearn, 1977; GSC, 1980: Macko et al., 1982; Dames and Moore, 1985; Norwood, 1987; Murray, 1989).

To date, four prehistoric archaeological sites and two historic cultural sites have been recorded on George AFB. None of these sites have been evaluated for their eligibility for eligibility on the National Register of Historic Places. In addition, George AFB contains numerous buildings that were constructed during World War II. Many of these buildings represent potentially significant historic-architectural resources that may become eligible for inclusion in the National Register in the future.

TABLE 3.5-1

ENDANGERED, THREATENED, AND SENSITIVE SPECIES
AT AND NEAR GEORGE AIR FORCE BASE

Common Name (Scientific Name)	Federal	Species of Concern[1] to the State of California
Desert tortoise (Xerobates agassizii)	Endangered	
Ferruginous hawk (Buteo regalis)	Category-2 species[2]	
Mohave ground squirrel (Spermophilus mohavensis)	Category-2 species	X
Alkali mariposa lily (Calochortus striatus)	Category-2 species	
Barstow woolly sunflower (Eriophyllum mohavense)	Category-2 species	
Desert cymopterus (Cymopterus deserticola)	Category-2 species	
Mohave vole (Microtus californicus mohavensis)		X
Willow flycatcher (Empidonax traillii)		X
Yellow breasted chat (Icteria virens)		X
Summer tanager (Piranga rubra)		X
Bendire's thrasher (Toxostoma bendirei)		X
LeConte's thrasher (Toxostoma lecontei)		X
Least Bell's vireo (Vireo bellii pusillus)		X

TABLE 3.5-1 (continued)

ENDANGERED, THREATENED, AND SENSITIVE SPECIES
AT AND NEAR GEORGE AIR FORCE BASE

Common Name (Scientific Name)	Federal	Species of Concern[1] to the State of California
Cooper's hawk (Accipiter cooperii)		X
Western yellow-billed cuckoo (Coccyzus americanus occidentalis)		X
Prairie falcon (Falco mexicanus)		X
Western pond turtle (Clemmys marmorata)		X
San Diego horned lizard (Phrynosoma coronatum blainvillei)		X
Red-legged frog (Rana aurora draytoni)		X
Mohave tui chub (Gila bicolor mohavensis)		X
Snail -- (no common name) (Helminthoglypta mohaveana)		X
Mohave monkeyflower (Minulus mohavensis)		X

(1) Species of concern listed by the California Department of Fish and Game.

(2) Category-2 species are those for which existing information is insufficient to warrant listing as endangered or threatened under the Endangered Species Act.

Source: Harper, 1989, personal communication; Bleich, 1989, personal communication; Hamby, 1989, personal communication).

In 1980, Geoscientific Systems and Consulting (GSC, 1980) conducted an archaeological and historical inventory of George AFB. This inventory included a synthesis of existing information on historic and prehistoric use of the area, identification of past ground disturbances on the Base, and compilation of the history of military use of the Base. GSC also conducted a walking survey of approximately 3,100 acres of undisturbed lands on the Base; neither the maps nor the GSC report describe the exact location of the 3,100 acres surveyed.

Subsequent surveys on the Base examined areas that had apparently been surveyed by GSC (Norwood, 1987; Murray, 1989). Although neither survey identified any cultural resources, Norwood (1987) discovered problems with the accuracy of the GSC study. For instance, the GSC report located eight sites on the Base, but official records and an inspection by Norwood (1987) indicated that four of the sites were east of the Base boundary. This discrepancy led Norwood to examine the reported locations of two other sites identified by GSC in the northeastern part of the Base. Finding no cultural materials at the mapped locations, Norwood (1987) concluded that either natural processes and vandalism obliterated traces of the sites or that GSC mapped the site locations incorrectly.

These problems and other concerns about the GSC report lead the California State Historic Preservation Officer (SHPO) to review the GSC report. In a letter to George AFB dated September 15, 1987, the SHPO stated that the GSC report was inadequate and indicated that additional field work would be required to complete a cultural resource inventory of the Base.

The Air Force plans to have an archaeological/cultural resources survey of George AFB completed in 1990 prior to reuse of the Base. Included in this survey will be an assessment of the historic and architectural resources of George AFB.

3.6.2 Native American Concerns

No Indian lands exist near George AFB (Knapp, 1989), nor are there any documented locations on Base that are traditionally used by Native Americans for religious, spiritual, economic, or cultural activities. GSC (1980) interviewed six members of the Serrano Indian Tribe to determine if George AFB contained any resources of religious and/or cultural significance to Native Americans. None of the individuals interviewed had any knowledge of Native American concerns that were specific to George AFB.

3.7 SOCIOECONOMICS

An EIS is required to discuss socioeconomic effects only when such effects are interrelated with natural or physical effects. During preparation of this EIS, the Air Force considered whether there might be any indirect biophysical effects which could be attributed to socioeconomic impacts. No such effects or interrelationships were found.

The Air Force, however, is sensitive to the community upheaval caused by closing a major employer like George AFB. Therefore, the Air Force is working with the Office of Economic Adjustment (OEA) to assist the communities expected to be hardest hit as a result of Base closure.

A second EIS will be prepared to cover the Air Force's proposed final disposition of Base property, including community reuse. A study that will be part of the second EIS will be conducted to examine the overall effects on socioeconomic factors. This study will include, for example, expected loss of tax revenues, housing and school impacts, and the loss of employment from Base closure under the worst-case assumption that no beneficial impacts would occur from Base reuse. These elements will then be compared to the gains expected as a result of the reuse options for George AFB. The impacts, both positive and negative, will be discussed in the second EIS to help the Air Force in its decision making with respect to disposal and reuse. Such analyses will be less speculative than they would be were they undertaken in this EIS, since an important component -- development of reuse options including a community response plan -- will then be available.

The OEA, located in the Office of the Assistant Secretary of Defense, provides the Chief staff arm for the President's Economic Adjustment Committee (EAC). The EAC consists of Federal department and agency heads and was established under Executive Order 12049 on March 27, 1978, to bring to bear the resources of various Federal agencies in assisting communities impacted by Base closures.

One of the OEA's activities is to assist these communities to develop and implement a comprehensive economic recovery program. The EAC then affords priority assistance to community requests for Federal technical assistance, financial resources, excess or surplus property, or other requirements that are part of this program. OEA has already initiated planning actions at the local level to provide planning assistance to communities to be affected by the closure of George AFB.

3.7.1 City and County Services

Services in the Victor Valley are provided by San Bernardino County and four incorporated cities, Adelanto, Victorville, Hesperia, and Apple Valley (see Figure 3.7-1). Hesperia and Apple Valley have only recently incorporated.

Adelanto and Victorville, which have the highest proportion of George AFB personnel in relation to total population, provide a full range of services (Davis, no date). Adelanto provides general government, fire protection, street and highway maintenance, community developments, water (from its own wells), and disposal of solid wastes. Victorville provides general government, fire protection, street and highway maintenance, and community development (Davis, no date). Water is provided primarily by the Victor Valley County Water District (Fields, 1989, personal communication).

Water services in the cities and in the unincorporated county are supplied to individual customers from 11 special water districts (Fields, 1989, personal

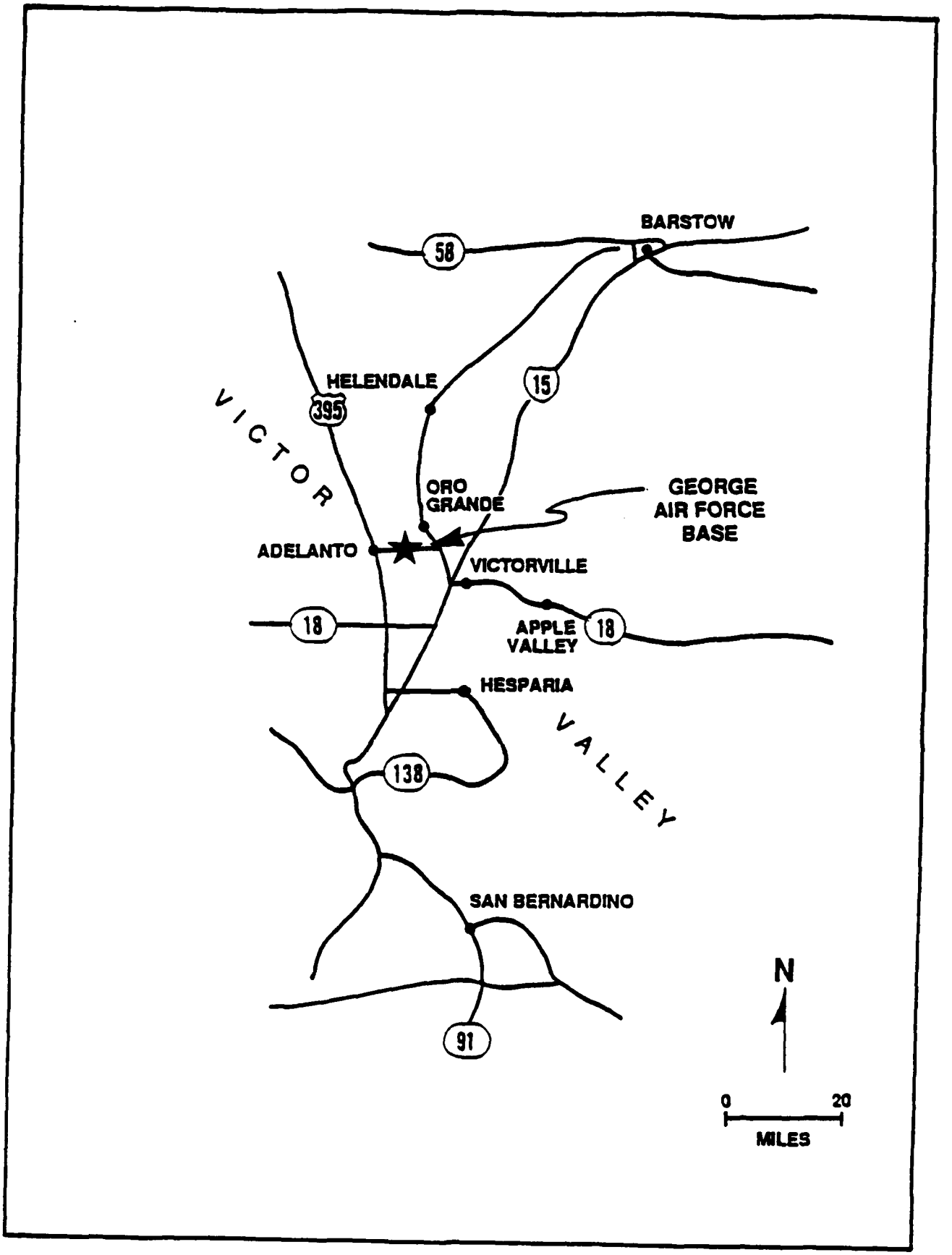


Figure 3.7-1. Communities in the vicinity of George Air Force Base.

communication). The Victor Valley Waste Water Reclamation Authority serves communities throughout the valley (Gossard, 1989, personal communication). Each city operates its own fire department; within the unincorporated areas of the county, the California Division of Forestry provides fire protection (Berg, 1989, personal communication). Each of the four cities (Adelanto, Victorville, Apple Valley, and Hesperia) contracts with the Sheriff and has a station within its boundaries. An additional station, located in Victorville, serves the unincorporated county areas (San Bernardino County Sheriff's Department, 1989, personal communication).

Two community hospitals serve the Victor Valley area. The Victor Valley Community Hospital in Victorville has 111 beds with a current occupancy rate of 66 percent (Nicolas, 1989, personal communication). Plans may lead to a 100 percent expansion by 1994 (Lewis, 1989, personal communication). St. Mary Desert Hospital in Apple Valley has 57 beds with a occupancy rate of 70 percent (Knight, 1989, personal communication). In addition, a hospital is located at George AFB (discussed further in Section 3.7.2).

3.7.2 Utilities and Services at George AFB

Much of the information in this section comes from George Air Force Base (1989a).

Water for George AFB is provided by a well system a short distance east of the Base near the Mojave River (see Section 3.3.3). The water is pumped to two ground-storage tanks on the Base with a total capacity of 300,000 gallons. Booster pumps bring the water to the water plant where it is chlorinated and then stored in three ground tanks with a total capacity of 1,050,000 gallons. Water is pumped from there to an elevated storage tank with a capacity of 500,000 gallons and to the Base distribution system. Water use at the Base in 1988 for all needs (municipal, industrial, and irrigation) totalled 3,642.47 acre-feet (1.19 billion gallons). The Base water-distribution system was, prior to the announcement of Base closure, scheduled to be replaced. Because of Base closure, these plans have been cancelled.

Natural gas is used for most heating at the Base. Southwest Gas Corporation of Las Vegas, Nevada, supplies the gas. From 1985 through 1988 gas use at the Base averaged 3,100,000 therms. (One therm is equal to 100,000 Btu or to approximately 100 cubic feet of gas. There is a slight downward trend in gas use at the Base.) Overall use of natural gas in the area (District 12 of Southwest Gas) is increasing at a rate of roughly 6,200,000 therms per year. In 1988, total gas supplied to District 12 was 49,229,742 therms (Lee, 1989, personal communication). Propane is used by several facilities on the Base at a total estimated rate of 8,000 gallons annually.

Electricity for the Base is provided by Southern California Edison. Power is furnished through the Base substation from the Victorville substation through an automatic transfer switch. A 2,400-volt line from the City of Adelanto feeds power to several facilities on the western side of the Base. Southern California Edison's entire output for 1988 was 68,050,137 megawatt-hours, with the Victorville District accounting for 1,390,358 megawatt-hours (Hitchcock, 1989, personal communication). Electricity use at the Base

was 55,293 megawatt-hours for the 1988 fiscal year at a cost of $4,459,100 (Rodgers, 1989, personal communication). Electricity usage had been increasing at a rate of 1,299 megawatt hours per year for the preceding four years. For fiscal year 1988, George AFB used 0.08 percent of Southern California Edison's total output, but consumed 4 percent of the Victorville District's output.

The George AFB fire department has a mutual aid agreement with community fire departments and also with the Bureau of Land Management and the California Department of Forestry and Fire Protection (ERIS, 1988). In the past several years the Base's fire department has not required outside assistance; the fire department currently has a staff of 43 military and 18 civilian personnel (George Air Force Base, 1989a). Police protection is provided by the County Sheriff's Department.

The generation and disposal of industrial and domestic wastewater at George AFB is discussed in Section 3.12, under "Waste Management." Services to military retirees are discussed separately in Section 3.7.4.

3.7.3 Transportation

George AFB is located close to major rail lines and to the U.S. Interstate Highway System. Several routes can be driven to George AFB from the surrounding communities. All traffic entering or leaving the Base must use one of two gates on Air Base Road. It is estimated that (1) traffic destined to the Base form Adelanto accounts for less than 8 percent of the total traffic approaching the Base from the west, and that (2) traffic destined to the Base from Victorville, Apple Valley, and Hesperia accounts for about 20 percent of the total traffic approaching the Base from the south (based on the distribution of military and civilian personnel living off-Base, but working at George AFB). Traffic congestion near the Base during peak traffic hours (morning and evening) is not considered to be a problem.

3.7.4 Services to Military Retirees

George AFB has a 30-bed hospital that provides basic in-patient and out-patient care (including prescriptions and medical testing) and specialty services, without charge, to retired military personnel and their dependents. The George AFB hospital has about 10,000 active records for military retirees and their dependents. Approximately 8 percent of the patients at the George AFB hospital are from other military Base communities (Workman, 1989a and 1989b, personal communication). In addition to patient care, the Base hospital serves as a site for clinical training for student nurses enrolled at the Victor Valley Community College (Johnson, 1989, personal communication) (Other hospitals in the area are described in Section 3.7.1).

If needed medical care is not available at George AFB for retirees and dependents, the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) provides payment for health services rendered in civilian facilities. Under the standard CHAMPUS program, the patient is responsible for 25 percent of the total bill or a fixed daily amount of $210. Under the Prime CHAMPUS program, participating health

care providers charge patients a nominal fee for services. Victor Valley Hospital is a participating provider; St. Mary's Desert Hospital is not (Workman, 1989a, personal communication).

George AFB also provides retirees access to the Base commissary, Army-Air Force Exchange Services (AAFES), and recreational opportunities. The Department of Defense's statistical report on the military retirement system (dated September 1989) shows 12,394 retired military personnel living in the 923XX zip code; an area that includes George AFB, Fort Irwin, and Barstow.

3.8 AIRSPACE MANAGEMENT

3.8.1 Air Traffic

Controlled airspace at George AFB consists of an airport traffic area, a control zone, and a terminal area, all of which are common to military and civil airfields where radar and air-traffic-control services are provided. Air traffic control services ensure the safe and expeditious passage of aircraft operating to or from an airfield, or transiting through the terminal area that surrounds the airfield.

The airport traffic area and the control zone at George AFB each encompass a standard 5-mile radius around the airfield. The airport traffic area extends upward from the surface to 3,000 feet above ground level (AGL), whereas the control zone extends 14,999 feet above mean sea level (MSL). The terminal area is much larger, encompassing about 1,200 square miles surrounding the Base and upward to 7,000 feet MSL. The terminal area provides maneuvering airspace for aircraft approaching George AFB. Air-traffic-control services outside of this area (for military aircraft enroute to the remote ranges to the north and in Nevada) are provided by the Federal Aviation Administration at Edwards AFB.

Eight small public and private airfields are within the George AFB terminal area, although George AFB has no air-traffic-control responsibilities for aircraft operations at these airfields.

George AFB averages almost 120,000 aircraft operations a year including both locally-based F-4s and transient aircraft (Table 3.8-1). Nearly half of these operations involve aircraft transiting between George AFB and the remote range complexes to the north and in Nevada. The other half are accounted for by practice takeoffs and landings and general aviation aircraft transiting through George airspace (Boysen, 1989, personal communication).

Operations between George AFB and the remote ranges do not contribute to air-traffic congestion in the greater Los Angeles area (Harik, 1989, personal communication). This is because George AFB airspace and associated operations are outside of the areas affected by Los Angeles International Airport and other major civilian and military airfields in the greater Los Angeles area. Furthermore, altitudes normally flown by military aircraft at the remote ranges, and along transit routes to and from George AFB, are below the commercial routes serving the Los Angeles area.

TABLE 3.8-1

GEORGE AFB AIRCRAFT OPERATIONS IN 1988

Assignment	Aircraft Type	Number LTO	Number T&G	Number Flights (%)	Operations Day	Operations Night	Total Operations
George AFB	F-4E/G	24,800	4,610	16	25,828	3,582	29,410
George AFB	OV-10	10,163	1,120	3	10,973	310	11,283
Transient	A-7	7,019	520	0	7,539	0	7,539
Transient	A-10	10,094	710	0	10,804	0	10,804
Transient	OA-37	2,860	350	0	3,210	0	3,210
Transient	T-38	3,760	400	0	4,160	0	4,160
Transient	F-4	7,720	1,100	0	8,820	0	8,820
Transient	OV-10	8,000	810	0	8,810	0	8,810
Transient	F-15	5,800	600	0	6,400	0	6,400
Transient	F-16	7,739	400	0	8,139	0	8,139
Transient	C-130	2,320	800	0	3,120	0	3,120
Transient	C-141	3,00	80	0	3,080	0	3,080
Transient	A-4	3,600	334	0	3,934	0	3,934
Transient	A-6	2,724	320	0	3,044	0	3,044
Transient	F-14	3,000	0	0	3,000	0	3,000
TOTALS		102,599	12,154		110,861	3,892	114,753

Notes: 1. Landings and Takeoffs (LTO) are actual departures and arrivals to the George AFB runways.

2. Touch and Go (T&G) operations include low and touchdown approaches in which the aircraft does not come to a stop. T&Gs are predominantly used in support of pilot training.

3. Night flights are generally conducted between 7:30 P.M. and 10:30 P.M.

Source: George Air Force Base, 1989a

3.8.2 Special Use Airspace

Airspace for which George AFB has scheduling responsibilities include one Military Operations Area (Baker MOA) for air-to-air combat training, and two Restricted areas (R-2502N and R-2509) for air-to-ground bombing and gunnery training. The Base also has responsibility for 10 Military Training Routes (MTRs) for low-level flight training, and one Aerial Refueling Route (AR-625) to support range-training operations (Thackery, 1989, personal communication). These areas and routes are located in San Bernardino, Los Angeles, Kern, and Inyo Counties, California, and in western Nevada. Most of these training areas are primarily used by George AFB-assigned aircraft; however, other military users also have a continuing need for this airspace.

3.9 NOISE

Noise is unwanted sound that interferes with normal activities or otherwise diminishes the quality of the environment. The physical characteristics of noise are intensity, frequency, and duration. The standard unit for measuring noise levels is decibels (dB). A logarithmic scale (in dB) is commonly used to indicate noise levels because of the wide range in sound intensities heard in a typical day. It is generally adjusted to the "A-weighted" scale (dBa) to better correspond to the normal human response to different frequencies and compensates for human increased sensitivity to frequencies from 1,000 to 6,000 cycles per second. Because of limited human sensitivity, when the sound level is doubled (a 3-dB increase), an individual perceives only a 25-percent increase in sound level. It requires a ten-fold increase in sound level (a 10-dB increase) to cause an individual to perceive a doubling in sound level (EPA, 1973).

Several ways have been developed to characterize with one number the multitude of noise events and noise fluctuations during an extended period (e.g., hour, day, or month). The one most commonly used is the day-night average sound level metric, L_{dn}. This is the sound level averaged over a 24-hour period, with an additional 10-dB penalty added to noise events occurring between 10 P.M. and 7 A.M. This penalty compensates for the additional annoyance of night-time events. The L_{dn} is the preferred unit of measurement by the Department of Defense (DOD), Department of Housing and Urban Development (HUD), the Department of Transportation (DOT), the Federal Aviation Administration (FAA), the Environmental Protection Agency (EPA), and the Veteran's Administration.

An L_{dn} of 55 dB is recognized by HUD, DOT, and EPA as an outdoor goal for protecting public welfare in residential areas. This noise level has been established by scientific consensus without concern for economic or technological consideration and is not a regulatory criterion. In general, an L_{dn} value of 65 dB is the noise level at which residential land-use compatibility becomes questionable for structures with average or below-average acoustic insulation. (Some residential areas are considered to be compatible with noise levels exceeding 75 dB if sufficient acoustic attenuation is provided.) HUD has determined that levels between 65 and 75 are "normally unacceptable" for sensitive uses such as hospitals and schools, unless attenuation measures are incorporated into the project design. Levels above 75 dB are considered unacceptable by HUD for noise-sensitive areas.

Noise at George AFB is characteristic of that associated with most Air Force Bases. During periods when aircraft activity is absent, noise at the Base is the result of shop activities, maintenance operations, ground traffic, and occasional construction work. Resultant noise is almost entirely restricted to the Base and can be considered comparable to that which might occur in adjacent areas of nearby communities.

Aircraft noise at George AFB occurs during aircraft engine warm-up, maintenance and testing, and during taxiings, takeoffs, approaches, and landings. In addition to the F-4E/G and OV-10A aircraft, flying operations at George AFB involve several other types of Base and transient aircraft (Table 3.8-1).

In recognition that the public and private uses of land near Air Force Bases should be compatible with the noise and potential hazards of air-Base operations, the Air Force has developed the Air Installation Compatible Use Zone (AICUZ) concept (described more fully in Section 3.10.2). The AICUZ provides data for local communities to use in managing land-use near Air Force Bases. The compatibility of noise generated by George AFB with use of the surrounding lands is discussed in Section 3.10 (Land Use).

The AICUZ approach uses the latest technology to assess noise levels. Noise zones (NZ) are expressed by contour lines in L_{dn} dB levels (e.g., 65, 70, 75, 80 and 85). In the AICUZ program, the annual average L_{dn} is used as the noise metric. This value is calculated on the basis of annual aircraft-operations data that are adjusted to represent an "average busy day."

The AICUZ study for George AFB (1989; data on file at George AFB) indicates that the collective operation of all aircraft (Base-assigned and transient aircraft) contributes the greatest amount of Base-generated noise to nearby areas. This is represented by the noise contours shown in Figure 3.9-1. Only those contours equal to and exceeding an Ldn dB level of 65 are shown; those parts of Adelanto and Victorville that are affected by noise from operations at George AFB are discussed in Section 3.10.2.

The Base receives approximately two to three calls a week concerning aircraft operations in the area (data from George AFB). Most of these calls pertain to activity on low-level military training route VR-1257. Many callers express concern about the low altitude of the aircraft and flying over individual homes, rather than the noise levels that are generated. Complaints concerning Base operations have originated chiefly from the City of Adelanto which is near the end of the runway; no complaints had been received from Adelanto during the first half of 1989 (data from George AFB). During the last three years, there have been no noise complaints relating to ground traffic or Base operations.

3.10 LAND USE

3.10.1 Land Ownership

George AFB is owned by the United States Government. Land bordering George AFB is largely privately owned. The town of Adelanto is contiguous to the western

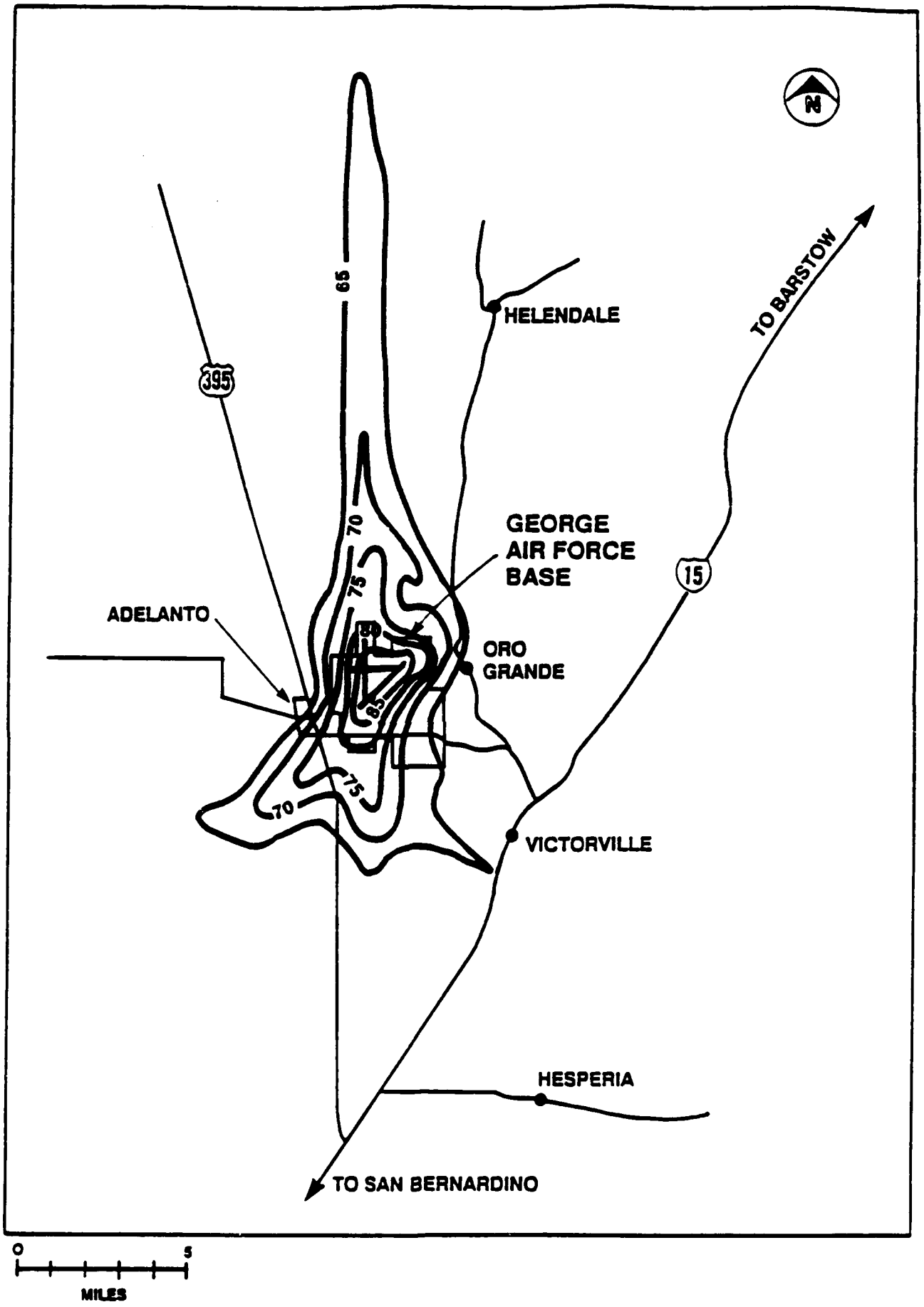


Figure 3.9-1. Day-Night average (Ldn) noise contours, in decibles (dB), for current operations at George Air Force Base.

and part of the northern and southern boundary of the Base (Figure 3.10-1). The town of Victorville is contiguous with part of the southern and eastern boundary of the Base (Figure 3.10-2). The remaining land that abuts the Base is privately owned and under the county's jurisdiction.

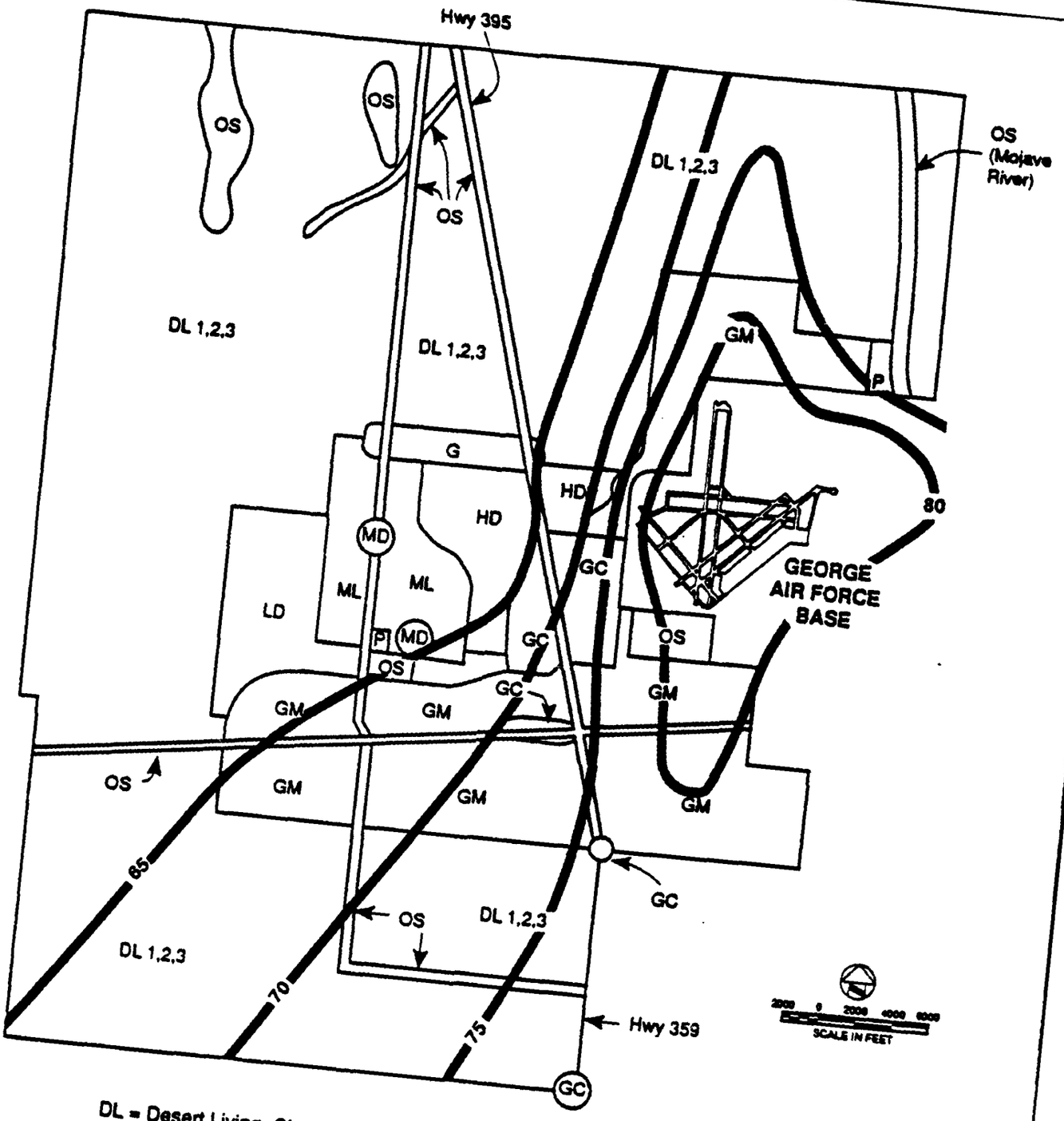
3.10.2 Land Use and Land-Use Compatibility with George AFB

When George AFB was constructed in the early 1940s, the area was remote from local communities to avoid land use and airspace conflicts. As has happened at so many military and commercial airfields, urban development has expanded, sometimes causing incompatible land uses near these airfields. Rapid growth in the Victor Valley is expected to further encroach on George AFB.

It is Air Force policy to work toward achieving compatibility between air installations and neighboring civilian communities by means of a compatible land use planning and control process conducted by the local community. The system for identifying and assessing land use compatibility is derived from the Air Installation Compatible Use Zone (AICUZ) concept. This concept embodies a process of projecting, mapping and defining aircraft noise and accident potential areas within the air-Base environs. Land use compatibility guidelines are applied to these areas and serve as the basis for Air Force recommendations to the communities for use in their land use planning and control process. Air Force commanders at the major command and Base levels establish and maintain active programs to achieve the maximum feasible land use compatibility between air installations and neighboring communities. The program requires that all appropriate governmental bodies and citizens are kept informed of Air Force views whenever AICUZ or other planning matters affecting the installation are under consideration.

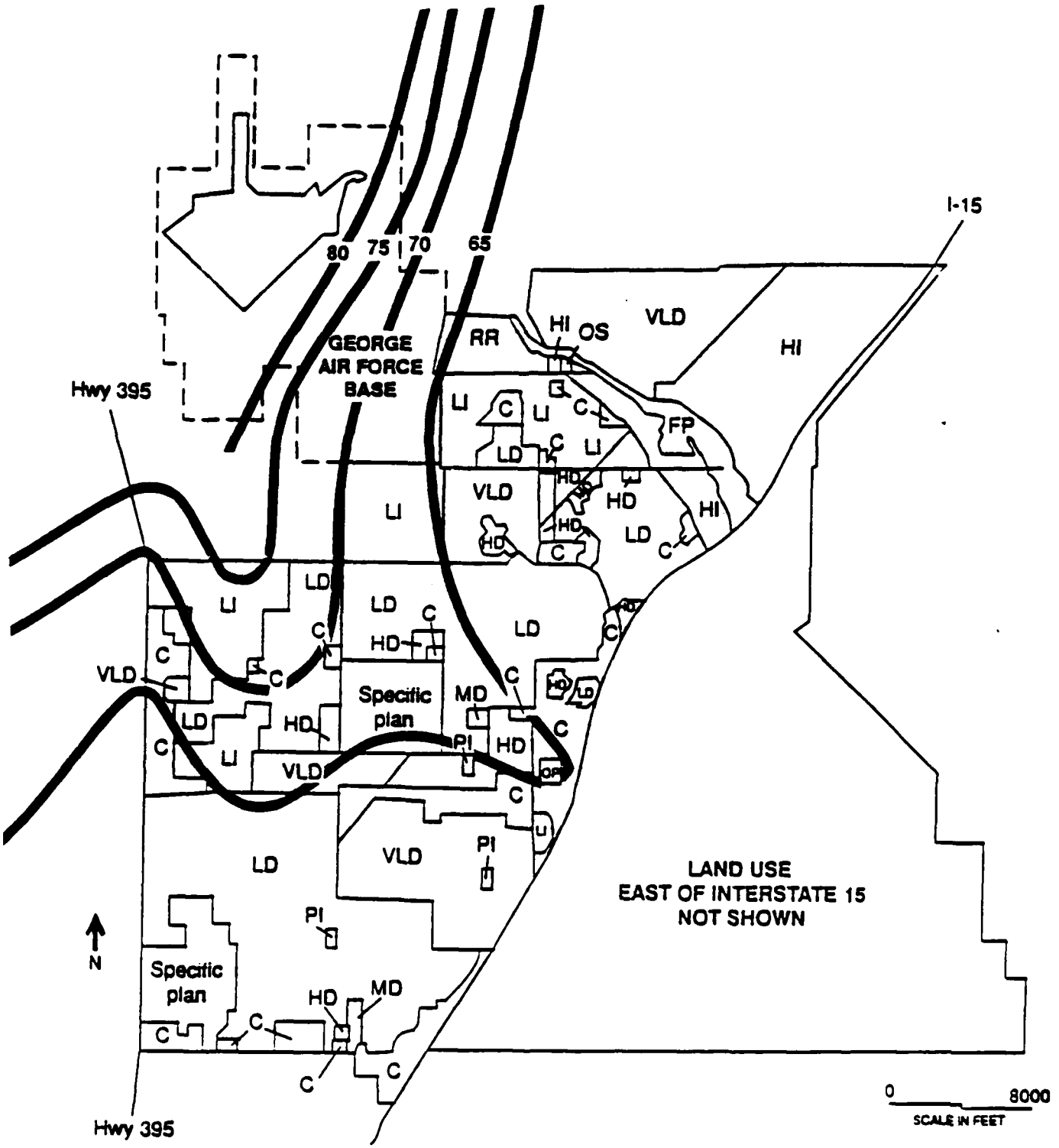
The AICUZ consists of land areas upon which certain land uses may obstruct the airspace or otherwise be hazardous to aircraft operations and land areas which are exposed to the health, safety, or welfare hazards of aircraft operations. The AICUZ program designates Accident Potential Zones (APZ) and Noise Zones (NZ) and provides land-use compatibility guidelines for these zones. The APZs and NZs are overlayed on base drawings to create Compatible Use Districts (CUD) which are the basic planning units of the AICUZ program. By combining the APZ and NZ land use guidelines, the (CUDs) becomes a composite input into the local planning process.

The City of Adelanto encompasses 23,325 acres of land and has a population of about 11,000 people (George Air Force Base, 1989a). Only about 5,120 acres in the central part of the City is actually developed. Growth is expanding to the south and the east, toward George AFB. Land use near the border with George AFB is zoned primarily for general manufacturing and commercial development (Figure 3.10-1). Residential areas of Adelanto are currently exposed to noise levels between 65 and 75 dB from aircraft operations from George AFB; commercial areas are exposed to noise levels between 65 and 80 dB (Figure 3.9-1).



DL = Desert Living, Classes 1,2,3 (1 D.U./1,5, or 10 acre)
LD = Low Density (1-2 D.U./Gross acre)
ML = Medium Low Density (2-4 D.U./Gross acre)
MD = Medium Density with Neighborhood Commercial (4-8 D.U./Gross acre)
HD = High Density (over 16 D.U./Gross acre)
GM = General Manufacturing
GC = General Commercial
OS = Open Space
P = Public/Quasi-Public

Figure 3.10-1. City of Adelanto land use policy map, showing the approximate location of noise contours (≥ 65 dB) from operations at George Air Force Base (in Ldn dB).



RR = Rural Residential - 0.2 d.u./acre
VLD = Very Low Density Residential - 2 d.u./acre
LD = Low Density Residential - 5 d.u./acre
MD = Medium Density Residential - 8 d.u./acre
HD = Heavy Density Residential - 20 d.u./acre
C = Commercial
OP = Office Professional

LI = Light Industrial
HI = Heavy Industrial
PI = Public/Institutional
OS = Opens Space
FD = Flood Plain
— — — = George AFB Boundary
——— = City of Victorville Sphere of Influence

Figure 3.10-2. City of Victorville land use policy map, showing the approximate location of noise contours (≥ 65 dB) from operations at George Air Force Base (in Ldn dB).

Victorville encompasses 33,283 acres and has a population of 31,700 (City of Victorville, 1988). In 1988 the city adopted a general plan that emphasizes community development (Figure 3.10-2). That part of Victorville that lies directly south of the Base is currently exposed to noise levels between 65 and 75 dB (Figure 3.9-1). The area is zoned for low-intensity uses, primarily light industrial and rural manufacturing, and has a permanent population of less than 100 people; minimum parcel sizes in this area are two and one-half areas (George Air Force Base, 1989a). Residential areas are exposed to noise levels between 65 and 70 dB (Figure 3.10-2).

Noise levels above 65 dB in other areas near George AFB are shown in Figure 3.9-1. Except for Adelanto and Victorville, the area exposed to noise levels ≥ 65 dB contains very few permanent residents.

Public lands in the vicinity of George AFB are managed by the Bureau of Land Management (BLM) according to a long-range plan called the "California Desert Conservation Area Plan," as amended (BLM, 1980). Public lands covered by the plan are classified into various allowable types of use, ranging from conservation to intensive use. George AFB and the area surrounding the Base are not covered by this plan, but parts of the remote ranges and the military training routes overlap the California Desert Conservation Area (see Section 3.8.2 for a discussion of these Special Use Airspaces).

The land-ownership pattern in the vicinity of George AFB is a checkerboard of public and private lands. To aid in the orderly development of these lands, and to protect valuable environmental resources, as well as airspace resources used by the Air Force, the "Western Mojave Land Tenure Adjustment Project" was initiated by the BLM, the County of San Bernardino, and the Air Force (BLM, 1987, 1988). The plan will attempt to adjust land-ownership patterns in the area to support the missions of Edwards and George AFBs, enhance the BLM's management of the public lands, and allow for development of private lands in accordance with the County's general plan. The Western Mojave Land Tenure Adjustment Project complements both the county's general plan and the "California Desert Conservation Area Plan" discussed in the preceding paragraph.

3.11 INSTALLATION RESTORATION PROGRAM

In 1980 the Air Force began implementing the Department of Defense's (DOD) Installation Restoration Program (IRP). The IRP is designed to investigate and evaluate suspected sites of contamination on DOD lands from past disposal of hazardous wastes. Implementation of the IRP is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA).

The IRP is independent of Base closure and will continue to operate despite the closure of George AFB. The IRP is addressed only to the extent that it is interrelated to closure actions and associated potential environmental impacts. Figure 3.11-1 shows the location of the IRP sites at George AFB. Table 3.11-1 briefly characterizes the wastes at each of the sites.

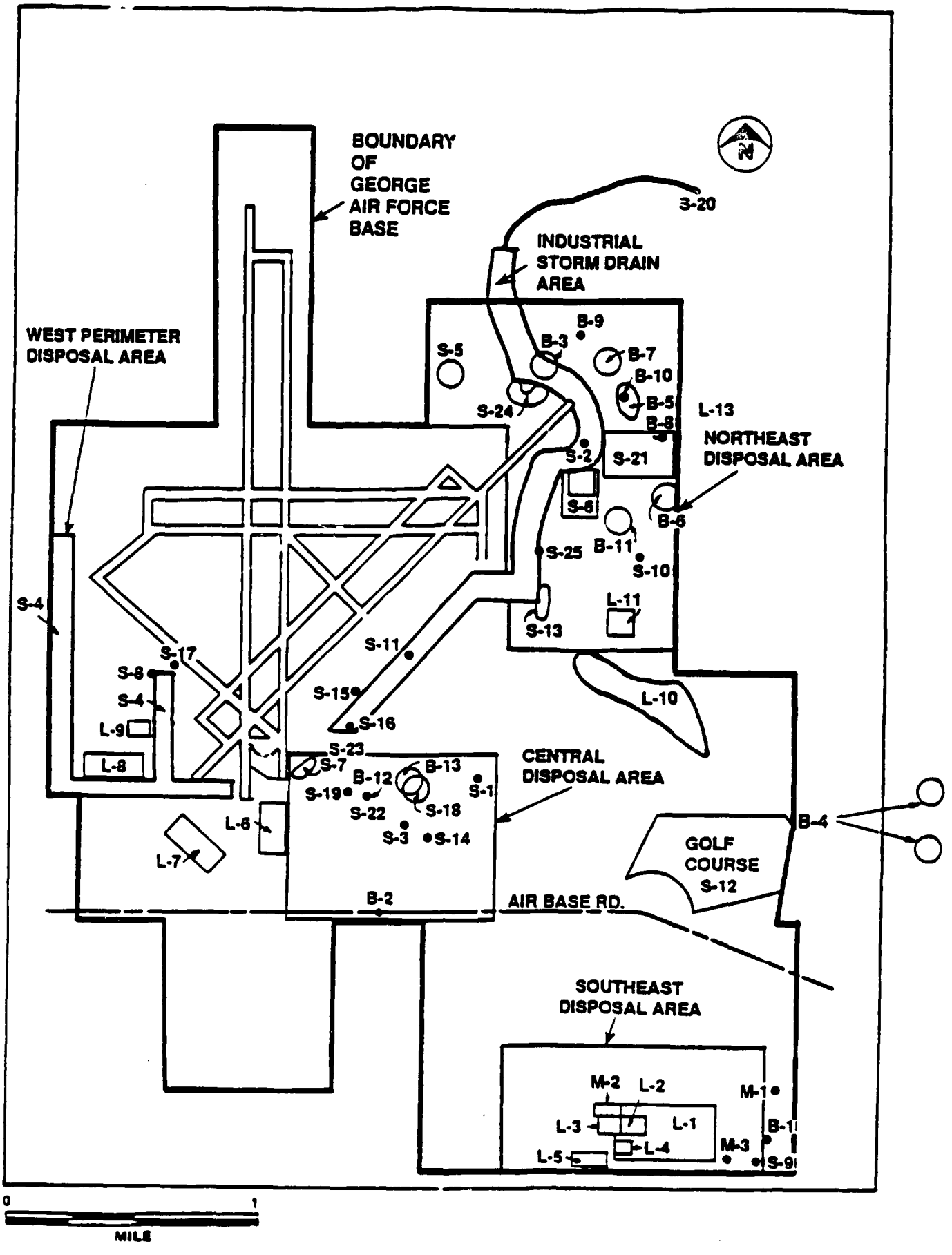


Figure 3.11-1. Location of IRP sites and waste disposal areas at George Air Force Base.

TABLE 3.11-1

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
Munitions		
M-1	Munitions	East of existing grenade range near abandoned small-arms range. 20 mm cartridges and grenade debris. Concrete-lined burn pit with paint cans. Unverified TNT & nitroglycerine burial near the burn pit.
M-2	Munitions/oil	South of Air Base Road. Trench (225'x60'x10') with small-arms munitions residues. Waste oils from auto hobby shop also possible.
M-3	Munitions/bombs	Burial area (50' by 50'), south of abandoned small-arms range. Burned practice bombs and small arms cartridges.
Landfills		
L-1	Base landfill	South of Air Base Road adjacent to abandoned small arms range. Lube oil, paint, laquer, naphthalene, PD-680, trichloroethylene (TCE), cleaning compounds, hydraulic fluid, firefighting foam, batteries, oil spill absorbent, and general refuse disposal. Unverified barrels of acetone in southeast corner. Waste oil and fuel were used to burn materials in landfill.
L-2	Tetraethyllead disposal	Within west boundary of L-1 Bottoms from fuel tanks and leaded fuel tank sludge. Possible trench (200'x15'x20') for JP-4 tank sludge in 1966.
L-3	Radioactive waste disposal	Directly west of site L-2 Unverified low-level radioactive wastes (vacuum tubes). Possible toxic chemicals.
L-4	Landfill cartridges	South of site L-3; jet engine starter cartridges.
L-5	Landfill paper	Southwest of site L-1; landfill with unburned paper.
L-6	Wood/debris disposal	South of Perimeter Road, northwest of existing skeet range. Wooden timbers and other debris. Possible barracks demolition (asbestos and fiberglass).
L-7	Construction debris/borrow pit	South of Perimeter Road. Borrow pit filled with construction debris (pavement, rock).
L-8	Road materials burial	West of Perimeter Road. Concrete, asphalt and rubble. Unverified disposal of aircraft parts and trash in 1940s.
L-9	Trash disposal	North of site L-8. Miscellaneous trash disposal.
L-10	Construction debris/trash	Beneath northern and eastern parts of residential area. Construction debris and rubble. Trash dumping and burning in 1950s, debris removal in 1970s.

TABLE 3.11-1 (continued)

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
L-11	Street sweepings	North of residential area. Street sweepings. Possible trash and rubble in 1960s, 1970s. All Base waste from 1953 to 1957, similar to wastes at L-1, with possible buring using waste oil in 1950s.
L-12	Original Base landfill	Under Bldg 761 (alert hangar) and apron. Non-salvageable materials (tools, POL, jeeps, scooters, war supplies after 1946). Incinerated ash form all Base trash burning prior to 1950. Miscellaneous dumping and buring until 1950.
L-13	Base landfill/fuel	East of the alert barn. Minimal fuel disposal. All Base wastes after closure in 1970 of site L-1.
Dumps		
B-1	Chemical toilet sludge	Southeast of abandoned small arms range. Chemical toilet sludge.
B-2	Paint drum burial	East of existing skeet range, adjacent to Air Base Road. 400 gallons of leaded paint in 1952.
B-3	Riprap for industrial drain discharge gully	Along the industrial drain discharge gully. Riprap materials from small empty cans and construction rubble.
B-4	Riprap for off-Base water supply	At the off-Base water supply wells. Riprap materials from small empty cans and construction rubble.
B-5	Rubble disposal	North of site L-13. Small rubble.
B-6	Miscellaneous trash/ rubble disposal	East of STP percolation ponds, adjacent to Base boundary. Misc. domestic trash and rubble in small area.
B-7	Construction demolition	Northeast of Runway 03. Small construction demolition disposal area.
B-8	Pesticide and paint burial	Southeast of site B-5. Unverified DDT, copper sulfate, and leaded paint.
B-9	Acid and oil burial	Northeast of northeast end of Runway 03. Unverified HCl, H_2SO_4, oil, fuel and unidentified drum burial.
B-10	Pesticide and oil burial	Northeast of Runway 03. Unverified pesticides and oil drums.
B-11	F-111 aircraft burial	Southeast of STP percolation ponds. An F-111 burial site.
B-12	Aircraft parts burial	Miscellaneous airplane parts, possibly in old salvage yard area.

TABLE 3.11-1 (continued)

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
B-13	Salvage yard	The Base salvage yard since 1950. Possible munitions burial.
B-A	Aircraft crash residue	Ten events over a widespread area. Aircraft parts.
B-B	Earth embankment firing range	At abandoned runway. Spent firearms and munition waste.
Liquid Disposal or Spills		
S-1	Petroleum, oil, lubricant (POL) leach field	Leach field waste POL (trucks).
S-2	Leach field	Leach field sanitary wastes, aircraft maintenance waste.
S-3	POL leach field	Leach field waste POL (vehicles), fuels lab.
S-4	Fuel and oil disposal	On perimeter road near engine test cells, off northwest end of abandoned runway. Waste jet fuel dumped on surface from bowsers.
S-5	Fire training area	At existing fire training area. Burnt waste oils and fuels.
S-6	Abandoned fire training	South of, and possibly under, the STP percolation ponds. Abandoned fire training area with burnt waste oil and fuel. Storage yard with oil, asphalt and pallative spills.
S-7	Tip tank drainage area	Wing tip fuel drainage area.
S-8	Test cell 799	Periodic jet fuel spills.
S-9	Creosote spill area	Near munitions disposal area south of abandoned small arms range. Possible creosote spills.
S-10	Jet fuel spill	East of missile maintenance area. Jet fuel spill-quantity unknown.
S-11	Bldg 708 pipeline leak	Jet fuel pipeline leak; quantity unknown.
S-12	Golf course	At golf course. STP percolation pond effluent.
S-13	Fuel spill collection point	Near intersection of Phantom and Desert Streets. Accumulation point for jet fuel accidentally discharged in 1980.
S-14	Bldg 690 pipeline leak	Near POL bulk fuel storage at Bldg 549. Possible 36,000 gallon jet fuel pipeline leak (est. < 1000 gal.)
S-15	Faulty construction leak	Southwest end of operational apron. Jet fuel leaks at hydrants.
S-16	Bldg 690 gasoline spill	Leaded gasoline spills prior to mid-1950s.

TABLE 3.11-1 (continued)

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
S-17	Bldg 819 fuel spill	8,000 gallon jet-fuel spill in 1950s.
S-18	Salvage yard liquids spill	Small spills of solvents, waste oils, and other liquids.
S-19	Bldg 560 (transformer storage)	Temporary storage area for unserviceable transformers. Minor leaks of oil from transformers.
S-20	Industrial outfall and pipeline	At northeast corner of the Base. Industrial/stormwater outfall gully with waste oils, fuels, solvents, paint strippers. STP percolation ponds located here in 1940s.
S-21	STP percolation ponds	South of alert hangar. STP percolation ponds for sanitary wastes. Waste oils and solvents enter sanitary system. Abandoned fire training area may underlie ponds.
S-22	French drain	Brick-lined drywell (30'x4' diameter) for equipment POL disposal.
S-23	French drain	Abandoned drain pit/drywell jet-fuel disposal.
S-24	Sewage sludge disposal	Along industrial discharge gully north of runway. Sewage sludge.
S-25	Sludge drying beds	Sludge drying beds for sanitary and industrial primary sludges from residential and shop discharges to sewer.
S-A	Shop waste	Undocumented locations. Misc. shop wastes including TCE.
S-B	Rinse water	Undocumented locations. Pesticide-containers rinse water.
S-C	Sewage sludge	Perimeter Road and undocumented locations. Sewer sludge.
S-D	Transformer malfunction sites	Various transformers (< 10). Small amounts of transformer oil.
S-E	Outlying revetments	Possibly all outlying revetments. Miscellaneous spills.
Other On-Base Sites		
NPSR	Non point source residential housing	East-central part of Base in housing area. Roadway and surface runoff from area.
LFDS	Liquid fuel distribution system	About 25,000' of 8", 10" step pipe from the operational apron south to and terminating at site S-14.

Source: CH2M Hill (1982); SAIC (1987)

The IRP is separated into three broad stages referred to as site identification, site investigation, and site clean-up. About $5,000 have been spent on site identification efforts at George AFB; $2,180,000 have been spent on site investigations.

IRP investigations began at George AFB in 1982. Additional investigations have been conducted at 29 of the total 63 sites since 1982. On July 14, 1989, George AFB was proposed for inclusion on the Environmental Protection Agency's National Priorities List (a superfund site under CERCLA). The information below describes the most significant sites and the clean-up efforts that have been or are underway at these sites. For ease of discussion, the IRP sites are grouped into five geographic areas on the Base, as follows (Figure 3.11-1): the Northeast Disposal Area, the Southeast Disposal Area, the Central Disposal Area, the West Perimeter Disposal Area, and the Industrial Storm Drain Disposal Area.

3.11.1 Northeast Disposal Area

The Northeast Disposal Area contains 11 IRP sites where additional work has been conducted since 1982; this area has undergone the most activity since IRP investigations began at George AFB in 1982. The paragraphs below highlight the most serious problems and the current and future efforts to clean up the area.

The Northeast Disposal area encompasses the outfall from the Industrial Storm Drain (Site S-20; discussed in 3.11.2), and many of the investigations in the area are in response to contamination of soils and groundwater from the outfall discharge.

Trichloroethylene (TCE) contamination was identified in the Northeast Disposal Area in January 1986. TCE is a suspected human carcinogen. A Cleanup and Abatement Order was issued by the California Water Quality Control Board, Lahonton Region, on January 16, 1986, requiring the Base to investigate the extent of the contamination and initiate clean-up efforts. Field investigations indicate the contaminated groundwater is 1.25 miles long by 0.75 miles wide; the contamination extends about 0.75 miles beyond the current boundary fence of the Base. The contamination is confined to the upper aquifer (see Section 3.3.2), which does not serve as a potable water source. The highest concentration of TCE found to date is 560 parts per billion (ppb). The State of California requires the responsible agency to clean up the site at concentrations above 5 ppb.

The Fire Training Area (S-5) consists of a concrete pad 100 feet in diameter, an oil/water separator to separate fuel components from wastewater, and an evaporation tank to evaporate residual contaminated water. These facilities were refurbished in 1987. Prior to this upgrade, fuel for the training fires was sprayed directly on an asphalt pad, which had severely degraded and did not contain the fuel as required. The underlying soils are contaminated with fuel components and require clean-up.

Current activities in the Northeast Disposal Area are attempting to remediate groundwater contamination and to define and remediate the soil contamination that exists at the various sites. These activities include:

- field studies in the vicinity of the Storm Drain Outfall, including additional soil and groundwater monitoring and sampling;
- drilling wells in the area and installing air-stripping equipment to remove TCE and other related organics from the groundwater;
- periodic sampling of monitoring wells; and
- periodic measurements of the water levels in monitoring wells.

Remedial actions in the area could last for several decades based on the extent of contamination.

3.11.2 Industrial Storm Drain Disposal Area

This area (Site S-20), in operation since the early 1940s, covers an extensive part of the Base extending from the sewer lines that surround the northeast/southwest runway to the north boundary of the Base near the Northeast Disposal Area. In the past the storm drain received, in addition to storm water, waste oils, fuels, solvents, and paint strippers. It includes the storm-drainage system and surface and buried drainage ditches and runoff channels adjacent to, and leading away from, the industrial area southeast of the runway.

The storm-drain system for the airfield consists of more than 3.5 miles of pipes in two parallel sections; the East Storm Drain and the West Storm Drain. Runoff through the system is discharged to an outfall ditch along the northeast side of the Base. A section of the East Storm Drain is constructed of perforated corrugated metal pipe, through which lead-contaminated materials have been disposed of; TCE contamination has also been detected. Soil contamination has been documented along the length of the sewer lines and ditches and in the outfall area. Storm runoff from the Base (exclusive of the airfield) flows into street gutters and is discharged to the outfall ditch.

Ongoing investigations in the Industrial Storm Drain Disposal Area include:

- characterization and remedial investigations along the length of the drains, including excavations, soil and groundwater monitoring, and sampling;
- studies to evaluate suitable methods for remediation of the soils and sludge along the drainage lines;
- periodic sampling of monitoring wells; and
- periodic measurements of the water levels in the monitoring wells.

The East Storm Drain will be removed and replaced prior to Base closure. Bids for this work have been opened and award of the construction contract is pending. Work is scheduled to be completed by September 1990. Plans for the West Storm Drain are not yet final because of ongoing field-characterization studies. After completion of these studies, Base personnel will meet with regulatory agencies to discuss the extent of necessary clean-up; decontamination of "hot spots" and closure in-place is the most likely clean-up strategy.

3.11.3 Southeast Disposal Area

The Southeast Disposal Area contains six IRP sites where additional investigations since 1982 have been conducted; one is a munitions disposal site and the other five are inactive landfills. Further investigations are planned for the Southeast Disposal Area.

Groundwater investigations in 1984 and 1986 detected heavy metals, benzene, and radioactivity (SAIC 1985, 1987). Recent investigations, however, detected no benzene or heavy metals, but did detect elevated levels of radioactivity that are believed to be of natural causes (JMM, 1988).

3.11.4 Central Disposal Area

The Central Disposal Area contains eight IRP sites where additional investigations since 1982 have been conducted. The most serious contamination is at Site S-3 where fuel-related hydrocarbons occur. The recommended method of remediation at this site (as well as other, similarly-contaminated sites on the Base) are being determined through feasibility studies. This technique consists of excavating the contaminated soils, relocating the soils to a lined and monitored pit, and adding oxygen and hydrocarbon-loving bacteria to degrade the contaminants. Several years will be required for this remediation.

Ongoing investigations at the Central Disposal Area consist of annual sampling of monitoring wells and annual measurements of water levels within these wells.

3.11.5 West Perimeter Disposal Area

One IRP site (S-4) exists in the West Perimeter Disposal Area. No soil contamination was discovered in 10 shallow soil borings in excess of applicable regulatory standards. There are no ongoing investigations in the West Perimeter Disposal Area.

Groundwater conditions in the area have not been investigated. The potential for groundwater contamination from past spills of fuel and oil, however, is not considered to be significant (SAIC, 1987).

3.11.6 Other Waste Sites and Disposal Areas

There are many IRP sites at George AFB that have not been investigated since their initial identification in 1982 because they were not considered to be a sufficient threat to human health and welfare to warrant further investigation. The AF will, under its own policy, accomplish further study of these 26 sites to confirm contamination or lack of it. The proper regulatory officials will be consulted and a decision will be made as to whether remediation efforts are warranted and what form those efforts will take.

3.12 WASTE MANAGEMENT

This section discusses the management of hazardous and non-hazardous wastes at George AFB.

3.12.1 Solid Waste

In 1988, George AFB generated a total of 121,800 yards of solid waste (George Air Force Base, 1989a). The waste is collected by a contractor and disposed of at the Victorville landfill at an annual cost to the Air Force of about $400,000.

3.12.2 Hazardous Waste

The Hazardous Waste Management Plan for George AFB establishes procedures for managing and controlling hazardous materials and wastes currently used and temporarily stored on the Base (George Air Force Base, 1989b). The Defense Reutilization and Marketing Office (DRMO) is responsible for disposal of all hazardous wastes. The Base Civil Engineer is responsible for disposal of residues from industrial waste-treatment processes, such as oil separators (George Air Force Base, 1989b).

A variety of hazardous wastes are generated at George AFB, including fuel and oil wastes, solvents and strippers, paint wastes, and numerous other chemical wastes generated from a variety of Base activities (CH_2M Hill, 1982). Hazardous wastes generated on the Base are stored temporarily at designated accumulation points within shops and hangars in which the wastes are generated (not longer than 90-days storage at these points). These wastes are then transported to the Base's Hazardous Waste Storage Yard. The Storage Yard operates under an interim Resource Conservation and Recovery Act permit (RCRA Part A); the Base has applied to the Environmental Protection Agency for a Part B RCRA permit for storage of hazardous wastes.

The Hazardous Waste Storage Yard has three 6,000-gallon tanks for storage of recyclable oils and solvents, two concrete slabs containing drums and containers for storage of hazardous wastes, and a small building for storing waste electrical-transformers and equipment that contain polychlorinated biphenyls (PCBs). Wastes that cannot be recycled are properly packaged and manifested for transport to the Kettleman Hills Waste Disposal Site operated by Chemical Waste Management, Inc.

3.12.3 Wastewater

Industrial and domestic wastewater generated at the Base is piped to a facility operated by the Victor Valley Wastewater Treatment Authority (VVWTA). The VVWTA has a service agreement with the Base. Both domestic and flightline wastewater are handled. The amount of wastewater produced by the Base has steadily decreased over the years, while the total amount of wastewater treated at the VVWTA facility has increased. In November 1988 the Base produced about 0.80 to 0.85 mgpd (millions of gallons per day) of wastewater. At that time, the VVWTA was handling a little less than 5.5 mgpd. By August 1989, the Base was producing only 0.6 to 0.7 mgpd (Kurtz, 1989, personal communication). This represents a reduction of the Base's contribution to the VVWTA from 15 percent of the total in late 1988, to 11 percent of the total by August of 1989.

The VVWTA issued a "Corrective Action Order" to George AFB on April 9, 1987, requiring that the Base construct an industrial wastewater collection/treatment system. Design of the system was under way prior to the decision to close the Base. Because George AFB will be closing, design and installation of the system has been cancelled. The Air Force briefed the VVWRA of this decision on January 26, 1989. During the interim prior to closure, the Base is attempting to minimize industrial discharges to the VVWTA wastewater treatment facility.

Prior to 1980, George AFB operated a wastewater treatment plant for sanitary sewage; the plant is no longer in service. When in operation, all sanitary, commercial, and industrial wastewaters were discharged to and treated by this plant. Permanent closure of this site will begin with studies to determine if contaminants exist at the site, and if so, their nature and concentration. If clean-up is required, a study will be prepared to identify and evaluate clean-up strategies. Money for any clean-up is expected to be available through the Defense Environmental Restoration Account.

3.12.4 Underground and Aboveground Storage Tanks

George AFB currently has 77 underground storage tanks (USTs). Most of the USTs are single-wall construction. Approximately 48 percent of the tanks contain diesel fuel; 25 percent contain JP-4 fuel; 18 percent contain unleaded gasoline; and the remaining 9 percent contain contaminated fuels, waste oil, and one tank contains naphtha. Plans to remove 14 of the USTs were already in place prior to the announcement of Base closure. Removal of each of the 14 tanks requires a permit from the San Bernardino Department of Environmental Health Services.

The 63 remaining USTs will be temporarily closed in-place so that they could, if required, be reactivated by a new user of the Base (considering that the Base could re-open as a commercial airfield, among other possibilities). No permits are required from the San Bernardino Department of Environmental Health Services if the UST closures are for a period of less than two years. A plan for the temporary closures, however, must be approved by the San Bernardino Department of Environmental Health Services prior to the start of work; periodic inspections and monitoring of the tanks may be required.

An Underground Storage Tank Management Plan for George AFB will be completed in 1990. Funding for the program is expected sometime in 1990 or early 1991. The plan includes an inventory of tanks on Base, their construction, and their capacity. The plan will include recommendations on whether the USTs are required for current operations. All active tanks will be leak tested to make sure they are not leaking contaminants into nearby soils.

The Base has five aboveground storage tanks for JP-4 fuel. The fate of these tanks is not yet known, although they must be purged of flammable gases to minimize the risks of accidental ignition or explosion. If a new user does not require these tanks, they could be disposed of or transferred to a different owner such as Edwards AFB or leased to the California/Nevada Pipeline Company as added in-line storage. There are no county regulations for abandonment and disposal of aboveground storage tanks.

3.12.5 Polychlorinated Biphenyls (PCBs)

There are 15 transformers at George AFB with PCB concentrations greater than 500 ppm, 24 PCB-contaminated transformers with PCB concentrations between 50 and 500 ppm, and 10 large capacitors containing PCBs. These transformers and capacitors will be removed, disposed of, and replaced prior to Base closure. Disposal will be according to regulations implemented under the Toxic Substances Control Act.

3.12.6 Radon

The Air Force has developed a Radon Assessment and Mitigation Program (RAMP) to evaluate the concentration of radon in family housing units on military installations. If high concentrations of radon are detected, methods for venting the gas (usually very simple) are implemented under the RAMP program. No government regulations currently exist for radon exposure.

The initial radon-screening survey at George AFB was done between December 1987 and February 1988. All results were below the EPA's recommended mitigation level of 4 picocuries per liter of air.

3.12.7 Oil/Water Separators

There are 33 oil/water separators at George AFB. If these separators are required by a new user of the Base, a plan will be developed and implemented to decontaminate the system and dispose of the sludge and wastewater (perhaps shipping the sludge to a licensed oil recycler). All visible residues will be removed from the surfaces of each separator and then the separators will be steam cleaned. If the new user does not require the oil/water separators, a plan will be developed for their disposal.

3.12.8 Asbestos

The Air Force policy for management of asbestos on Air Force Bases that are closing is described in Appendix C. In general, asbestos will be removed if (a) the protection of human health, as determined by the Base Bioenvironmental Engineer, requires removal (e.g., exposed, friable asbestos within a building), (b) a building is unsalable without removal, or removal prior to sale is cost-effective, or (c) a building is, or is intended to be, used as a school, child care facility, or hospital.

If none of items mentioned in the preceding paragraph apply, the asbestos will be managed using commonly accepted standards, criteria, and procedures to assure sufficient protection of human health and the environment. Prior to the sale of Base properties, a thorough survey for asbestos (including review of facility records, visual inspection, and, where appropriate, intrusive inspection) will be conducted by the Air Force. All appraisal instructions, advertisements for sale, and deeds will contain accurate descriptions of the types, quantities, locations, and condition of asbestos in any real property to be sold or otherwise transferred outside the Federal Government. Appraisals will indicate what discount the market would apply if the building were to be sold with the asbestos in place. The final Air Force determination regarding the disposition of asbestos will be dependent on the plan for disposal and any reuse of the building. Decisions will, among other things, take into account the proposed community reuse plan for the Base. The course of action to be followed with respect to asbestos at each closing Air Force Base will be analyzed in the Disposal and Reuse Environmental Impact Statement, and will be included in the Record of Decision (ROD).

About 10 percent of the existing facilities at George AFB have been tested, with about 40 percent of those tested containing asbestos. Most of the asbestos is contained in mechanical rooms and floor tile. Completion of the asbestos survey at George AFB is planned, either by Base staff or through a contract. After this survey is completed, an appropriate method for minimizing the risks of exposure to asbestos will be developed (see Appendix C).

CHAPTER 4.0 - ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This Chapter describes the environmental consequences that are expected from the closure of George AFB.

4.2 GEOLOGY AND SOILS

4.2.1 Geology

Closure of George AFB will have no effect on the geology or the availability of mineral resources because ownership of the land, and any resources it may contain, will be retained by the Federal government after Base closure.

4.2.2 Soils

Closure of George AFB will be beneficial to soils because soil disturbances caused by military activities at the Base will cease after Base closure. The only exception to this conclusion is minor soil disturbances caused by a caretaker force if such a force is required (see Chapter 2 for details).

4.3 WATER RESOURCES

4.3.1 Surface Water

No perennial sources of surface water exist in the vicinity of George AFB. Closure of the Base will therefore have no effect on existing surface waters. The quality of storm-water runoff will probably improve, however, because the potential for surface contamination at the Base will be reduced after closure.

The Air Force will maintain the existing surface-drainage system at the Base during the closure period. No significant changes in the quantity or pathways of surface runoff from the Base are expected as a result of closure.

Rehabilitation of the 50-year-old storm-drain system at the Base is currently being conducted under the Air Force's Installation Restoration Program (see Section 3.11.2). When completed (prior to closure), lead and solvent contamination from past disposal practices in the East Storm Drain will be remediated. This is a beneficial impact to both surface water and groundwater even though the remediation is not being conducted because of Base closure (see the discussion of the IRP in Section 3.11.2).

4.3.2 Groundwater

Groundwater is the source of both private and public drinking water, as well as the source of water for George AFB. Closure of the Base will result in reduced consumption of groundwater and a corresponding reduction in the rate of water-table lowering.

Contamination of groundwater at George AFB is well documented. Activities associated with clean-up of the contaminated ground water are being conducted under the Installation Restoration Program (see Section 3.11). This program is independent of Base closure and will continue, where needed, after the Base closes.

4.3.3 Water Source for George AFB

After closure (and assuming that a new user has not been identified), the Base will still require water for the caretaker force and for maintenance of the grounds, including the Base golf course. The volume of groundwater that will be required during closure is not known at this time, but will be substantially less than the 1988 requirement of 3,642 acre-feet (1.19 billion gallons). The environmental consequences of a reduction in the rate and volume of groundwater pumping for the Base will be a likely rise in the area's groundwater table.

4.4 AIR QUALITY

When the Base is fully demobilized and closure is complete, air emissions from the Base will be reduced to nearly zero. This will result in a net improvement in ambient air quality for the region. San Bernardino County's nonattainment status for ozone is not expected to change, however, because exceedance of ozone standards is from pollutants transported into the county from the Los Angeles urban area and the San Joaquin Valley.

Upon Base closure, air credits (allowable emissions) for permitted stationary sources could either be (1) sold to developing industries in the area, (2) transferred to a new user if the new user plans to operate the already-permitted equipment at the Base in the same manner as it is now operated, or, if the new user plans to use the Base in a different manner than is currently used by the Air Force, then (3) transfer the existing air credits to the new user in a ratio of 1.2 Base-owned credits to 1.0 new-user credits (this ratio is under review by the State of California).

A survey of asbestos-containing materials on the Base is currently being conducted and will be completed prior to disposition of the facilities (see Sections 3.12.8, 4.12.8, and Appendix C). Emissions of asbestos from the Base are not expected during demobilization and closure in compliance with NESHAPs.

4.5 BIOLOGICAL ENVIRONMENT

4.5.1 Plant Resources

Native plant species on George AFB will benefit from closure of the Base because Air Force activities that could impact plants will cease after closure. Ornamentals that have been planted on the Base will be maintained through closure, or if required, by a caretaker force after closure; hence, neither adverse nor beneficial impacts are expected to the ornamentals after Base closure.

After closure, regrowth of native plants should become evident throughout some parts of the Base, especially at the northern end where vehicle access to the Base is limited by a fence. The southern part of the Base is unfenced and will remain so after closure. Off-road vehicles (ORVs) have trespassed onto the southern part of the Base in the past, destroying plants and disturbing soil (Caron, 1989, personal communication). Trespass will probably continue after Base closure despite the presence of a caretaker force and periodic security patrols. It is possible, however, that a new user could assume control and operation of the Base by the scheduled closure date (winter 1992). If that happened, impacts to biological resources from vehicle access along the southern part of the Base would be not significantly different than they are now. In any event, overall improvement in plant regrowth is expected in the southern part of the Base because all military activities will cease.

4.5.2 Wildlife Resources

An overall increase in the number and variety of wildlife should accompany the increase in plant regrowth after Base closure. Similar to the plants, the increase in wildlife should be most evident in the northern part of the Base where vehicle access is restricted by a fence. The lack of fencing on the southern part of the Base may encourage unauthorized use of the area by ORV enthusiasts, especially because large numbers of military personnel will no longer be present. Such use could destroy some wildlife habitat, as well as individuals of some species.

4.5.3 Threatened, Endangered, and Sensitive Species

Increases in the population of threatened, endangered, and sensitive species can be expected at the Base after closure because military activities will cease. Maintenance of the Base golf course during closure of the Base should particularly benefit the desert tortoise, where ornamental grasses and irrigation of the course have provided the tortoise with a substantial food source. As described in Section 4.5.2, some habitat destruction, as well as mortality of individuals, may occur along the southern part of the Base because of vehicle trespass. Overall, however, the impacts to threatened, endangered, and sensitive species -- particularly the desert tortoise -- are expected to be beneficial.

A biological assessment of the impacts of Base closure on threatened and endangered species will be submitted to the U.S. Fish and Wildlife Survey. The assessment will conclude that no adverse impacts are expected to threatened and endangered species from closing George AFB.

A biological field survey of the Base is planned for the spring of 1990. Results of this survey will be provided to potential new user(s) of the Base to help avoid and/or mitigate adverse impacts to these species from possible new uses of the Base. The species to be included in this survey are the desert tortoise and the five Category-2 species listed in Section 3.5.3. This survey is not part of the biological assessment described in the preceding paragraph.

4.6 CULTURAL RESOURCES AND NATIVE AMERICAN CONCERNS

4.6.1 Cultural Resources

Impacts to cultural resources occur from activities that disturb the surface and from unauthorized collecting and vandalism of sites. The closure of George AFB will virtually eliminate military-related ground disturbances at the Base. Trespass by ORV drivers, which occasionally occurs now in the unfenced southern part of the Base (Caron, 1989, personnel communication), may increase if there is a period of time when a caretaker force occupies the Base. Overall, however, the impacts of Base closure on cultural resources are expected to be positive.

A cultural/architectural survey of George AFB is planned for the spring of 1990 as part of Base closure. This survey will determine if important cultural and architectural resources exist on the Base. The results of this survey will be supplied to the new user of the Base.

4.6.2 Native American Concerns

Closure of George AFB will have neither positive nor adverse impacts to Native American. GSC (1980) interviewed six members of the Serrano Indian Tribe to determine if George AFB contained any resources of religious and/or cultural significance to Native Americans. None of the individuals interviewed had any knowledge of Native American concerns that were specific to George AFB. Furthermore, no documented locations exist on George AFB that are traditionally used by Native Americans for religious, spiritual, economic, or cultural activities.

4.7 SOCIOECONOMICS

An EIS is required to discuss socioeconomic effects only when such effects are interrelated with natural or physical effects. During preparation of this EIS, the Air Force considered whether there might be any indirect biophysical effects which could be attributed to socioeconomic impacts. No such effects or interrelationships were found. Therefore, it was not necessary for the completeness of the environmental analysis to forecast socioeconomic consequences.

The Air Force, however, is sensitive to the community upheaval caused by closing a major employer like George AFB. Therefore, the Air Force is working with the Office of Economic Adjustment (OEA) to assist the communities expected to be hardest hit as a result of Base closure.

A second EIS will be prepared to cover the Air Force's proposed final disposition of Base property, including community reuse. A study that will be part of the second EIS will be conducted to examine the overall effects on socioeconomic factors. This study will include, for example, expected loss of tax revenues, housing and school impacts, and the loss of employment from Base closure under the assumption that no beneficial impacts would occur from Base reuse. These elements will then be compared to the gains expected as a result of the reuse options for George AFB. The impacts, both positive and negative, will be discussed in the second EIS to help the Air Force in its decision making with respect to disposal and reuse. Such analyses will be less speculative than they would be were they undertaken in the Closure EIS (this EIS), since an important component -- development of reuse options including a community response plan -- will then be available.

The OEA, located in the Office of the Assistant Secretary of Defense, provides the Chief staff arm for the President's Economic Adjustment Committee (EAC). The EAC consists of Federal department and agency heads and was established under Executive Order 12049 on March 27, 1978, to bring to bear the resources of various Federal agencies in assisting communities impacted by Base closures.

One of the OEA's activities is to assist these communities to develop and implement a comprehensive economic recovery program. The EAC then affords priority assistance to community requests for Federal technical assistance, financial resources, excess or surplus property, or other requirements that are part of this program. OEA has already initiated planning actions at the local level to provide planning assistance to communities to be affected by the closure of George AFB.

4.7.1 City and County Services

Local utilities do not supply water to the Base; therefore, no impacts to local water-suppliers are expected.

By the end of 1992, the projected total natural gas use in Southwest Gas Corporation's District 12 is estimated to be 74,000,000 therms. This is assuming a rate of increase of 6,200,000 therms per year, starting from a total usage of 49,229,742 therms in 1988. At closure, the projected use of natural gas at George AFB will drop to 775,000 therms, assuming a drop to 25 percent of current average usage to keep buildings at 55 degrees. This represents 1 percent of the estimated total natural gas supplied to District 12 by Southwest Gas Corporation. Considering the rapid growth rate in this area, a 1 percent drop in gas consumption is viewed as a negligible impact to Southwest Gas Corporation.

Reduction of electricity consumption at the Base by an estimated 85 percent after closure leaves a residual consumption of 9,150 megawatt-hours per year. This

represents an approximate reduction of 0.07 percent of Southern California Edison's total output. The reduction represents approximately 3.5 percent of the Victorville District's output. Because of the rapid rate of growth in this area, closure of George AFB is not expected to cause adverse impacts to Southern California Edison.

Closure of the Base Fire department is not expected to have significant impacts on the fire-fighting ability of community fire departments, the Bureau of Land Management, or the California Department of Forestry and Fire Protection.

No adverse impacts on the provision of civilian health care are expected as a result of Base closure. The reduction in use of community hospitals from the closure of George AFB would be offset by an increase in use of these hospitals by military retirees and their dependents who previously used George AFB Hospital. Both of the local hospitals have adequate capacity to absorb an increase in use from retirees. The overall availability of health care services in the area would not be significantly reduced by the closure of George AFB Hospital because several large hospitals are located within an hour's drive of George AFB. Additionally, George AFB Hospital represents a small proportion of the total number of hospital beds in the Victor Valley area.

The effects of Base closure on the Victor Valley Waste Water Treatment Facility are described in Section 4.12.3 under "Waste Management."

4.7.2 Utilities and Services at George AFB

Plans to up-grade the Base water-distribution system, previously scheduled for replacement in Fiscal Year 1990, have been cancelled because of the announced closure. Impacts of Base closure on suppliers of natural gas and electricity are described in Section 4.7.1. The impacts of closure on waste disposal at the Base are described in Section 4.12.

4.7.3 Transportation

Closure of George AFB will require the transport of aircraft, materials, supplies, and personnel to Mountain Home AFB in Idaho. Transfer of men and materials will occur in phases as shown in Table 2.1-1.

Several transport methods, including truck, freight train, and airplane, could be used to transport the men and materials to Mountain Home AFB. The preferred transport mode, or the mix of transport modes, has not yet been determined.

George AFB is located close to the U.S. Interstate Highway System and close to major rail lines. No adverse impacts are expected from using either highway, rail, or aircraft to transport men and materials from George AFB to the Mountain Home AFB, or using a combination of these transport modes. The Air Force will coordinate its Base closure efforts with Caltrans regarding any transport of heavy equipment along California State highways.

The reduction in Base traffic is expected to have beneficial impacts on the area transportation network even though the local network near the Base is not considered to be congested. The road most likely to experience a positive reduction in traffic is Air Base Road, along which all off-Base personnel must travel to enter and leave George AFB. Based on the distribution of off-Base personnel and likely commuting patterns, an estimated reduction in traffic from 5 to 12 percent is expected to occur on parts of Air Base Road near George AFB.

4.7.4 Services to Military Retirees

Closing the George AFB Hospital could result in a direct financial impact to eligible recipients of military health care, particularly military retirees and their dependents. The hospital's closure would reduce the availability of military health services to the approximately 12,395 retirees and their dependents living near George AFB. Additionally, supplemental services presently available to eligible persons living in the vicinities of Barstow Marine Base, Ft. Irwin, Edwards AFB, China Lake, and Norton AFB would be reduced, potentially affecting health care at other Base communities.

The George AFB hospital has about 10,000 active records for military retirees and their dependents. Patients who previously used George AFB hospital would be required to either travel longer distances for treatment at a military facility (for instance, March AFB Hospital, 60 miles away) or receive services in community hospitals under the CHAMPUS program (described in Section 3.7.1). For patients who choose to use CHAMPUS, the average patient would incur additional expenses of approximately $580 per year for in-patient services and $275 per year for out-patient services, based on 1988 utilization data. Additionally, patients would incur additional costs for prescription drugs and some medical tests. There would be an associated increase in paperwork and inconvenience for patients and their families. Thus, closure of George AFB will result in an adverse impact on cost and convenience of health care for military retirees and dependents who now depend on this hospital.

Adverse impacts to retirees and their dependents will also occur because of the closure of the Base commissary, AAFES, and elimination of Base recreational services.

4.8 AIRSPACE MANAGEMENT

4.8.1 Air Traffic

Closure of George AFB will have little effect on the air-traffic congestion in the greater Los Angeles area. George AFB airspace and transit routes to the remote ranges are below the airway structure serving the Los Angeles area. The airspace and transit routes are not now a source of conflict with commercial and commuter traffic entering and exiting the Los Angeles region; hence, Base closure will have a negligible impact on reducing air-traffic congestion in the region. Base closure will, however, reduce the workload on the Edwards AFB air-traffic-control facility.

Closure of the Base will benefit the smaller, general aviation aircraft that operate under visual flight rules at low altitudes in the area. Closure of George AFB will reduce the mix of high-performance fighter aircraft with general aviation aircraft at these lower altitudes.

The future need for air-traffic-control airspace around George AFB will depend on whether or not reuse of the Base is for commercial aviation; a subject to be discussed in the reuse EIS.

4.8.2 Special Use Airspace

Transfer of scheduling responsibilities for the Baker MOA, Restricted Areas R-2502N and R-2509, the 10 MTRs, and Aerial Refueling Route AR-625 will be determined by the Department of Defense (DOD) on the basis of training needs of other DOD units. Range usage freed by the closure of George AFB will probably be short-lived as other DOD units fill the void.

4.9 NOISE

Closure of George AFB will result in the cessation of all military flights; thus, aircraft noise from Base operations will be virtually eliminated (some military aircraft might occasionally land at the Base after closure). The result will be a reduction in the level of noise in the environment and a noticeable change for the better in the noise environment of nearby communities. In addition, noise generated from ground transportation associated with the Base will be reduced significantly because of the reduction in military, supplier, contractor, and dependent traffic.

4.10 LAND USE

Closure of George AFB will have no effect on ownership of the Base because the Air Force will retain ownership until an appropriate reuse has been determined.

Closure of George AFB is expected to have potentially beneficial impacts to land use because of reductions in both noise and potential aircraft accidents in areas near the Base. Land uses could change, depending on reuse of the Base, but discussion of reuse options is deferred to the second EIS on Base reuse.

Future land use of the Base and the effects of Base closure on planned future land uses in nearby areas depend on the nature of Base reuse. The Air Force, however, encourages the retention of current zoning restrictions by nearby communities regarding aircraft noise, safety, and height and obstruction criteria until a final decision is made concerning reuse of George AFB. The effects of Base closure on land-use plans, such as the California Desert Conservation Area Plan and the Western Mojave Land Tenure Adjustment Projects, are expected to be minor and depend on reuse of the Base. Public lands beneath the remote ranges controlled by George AFB will be unaffected by Base

Closure because these ranges will be used by other units of the Department of Defense (see Section 4.8.2).

4.11 INSTALLATION RESTORATION PROGRAM

The IRP will not be affected by the closure of George AFB. The IRP is independent of Base closure, and will continue, as needed, after the military mission of George AFB has been terminated. Through the IRP, the Air Force is committed to thoroughly investigate and remediate contaminated sites as needed. The Air Force, the U.S. Environmental Protection Agency (Region IX), and the State of California will be involved in decisions on the clean-up of contaminated sites at George AFB. When remedial actions are complete, the Air Force will monitor the sites as necessary to assure the effectiveness of the remedial action. In some cases, long-term monitoring for a number of years may be required. Sites that are currently under investigation at George AFB (see Section 3.11) may nevertheless be restricted from future development until all necessary remedial actions are completed.

Those IRP sites on George AFB that pose a significant risk to people trespassing on the Base after closure may be fenced and posted. Although the plans for a caretaker force have yet to be fully developed, frequent security patrols of the Base would also limit the risk of exposure to the general public.

4.12 WASTE MANAGEMENT

4.12.1 Solid Waste

Generation of solid wastes will be reduced significantly upon closure of George AFB, thereby increasing the life span of the Victorville landfill.

4.12.2 Hazardous Waste

Upon Base closure, the Hazardous Waste Storage Yard will be closed according to requirements in the Resource Conservation and Recovery Act (RCRA) and California Administrative Code, Title 22. All wastes stored in the yard will be disposed of properly. All residual contamination in the yard, and at hazardous-waste accumulation points throughout George AFB, will be remediated. It is expected that only minor clean-up efforts will be required for all these sites.

Elimination of hazard-waste generation, and the closure of the hazard-waste storage yard and waste-accumulation points on the Base, will have a positive impact on the environment because the potential for spills and accidents involving stored hazardous wastes will no longer exist.

4.12.3 Wastewater

Generation of industrial and domestic wastewater generated at the Base will virtually cease upon Base closure. Reduction of the daily wastewater output at George AFB from 0.6 mgpd of mixed domestic and flightline wastewater to a very small flow of simple sewage will benefit the Victor Valley Waste Water Treatment Authority by reducing the amount of wastewater needing treatment in a growing area, and by eliminating flightline wastes which are difficult to treat (Kurtz, 1989, personal communication).

4.12.4 Underground and Aboveground Storage Tanks

The removal of 14 underground storage tanks (USTs), the temporary closure of the remaining 63 USTs, and the likely temporary closure of five aboveground storage tanks at George AFB are expected to have slight positive effects on the environment in that the potential for accidental spills of fuel will no longer exist.

Abandonment and temporary closures of both underground and aboveground storage tanks will be closely coordinated with the San Bernardino Department of Environmental Health Services.

4.12.5 Polychlorinated Biphenyls (PCBs)

Disposal of PCB transformers and capacitors from George AFB will have a slightly positive impact on the environment because the PCB-containing materials will be properly disposed of according to regulations implemented under the Toxic Substances Control Act.

4.12.6 Radon

Closure of George AFB is expected to have neither a positive nor negative effect on human exposure to radon because the results of radon sampling indicate that radon is not a problem at the Base.

4.12.7 Oil/Water Separators

No impacts are expected from either the reuse or disposal of the oil/water separators at George AFB. In either case a plan will be developed to decontaminate the separators and dispose of the sludge and wastewater (perhaps shipping the sludge to a licensed oil recycler).

4.12.8 Asbestos

Completion of an asbestos survey at George AFB is planned prior to Base closure (see Section 3.12.8). Depending on the results of this survey, an appropriate

method for minimizing the risks of exposure to asbestos will be developed in accordance with Air Force policy (see Appendix C for this policy).

4.13 RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY OF THE ENVIRONMENT

Closure of George AFB was recommended by the Secretary of Defense's Commission on Base Realignment and Closure. Closure of the Base will discontinue all current military uses of the Base. After closure, the risk of military aircraft accidents will be greatly reduced, and the risk of accidental spills of hazardous materials by the military will no longer exist.

Reuse or development of lands at George AFB containing hazardous waste sites (IRP sites) will be precluded until those sites have been fully characterized and all necessary clean-up is completed.

The long-term socioeconomic productivity of the area surrounding George AFB is not discussed in this EIS. A second EIS will be prepared that will discuss the Air Force's proposed final disposition of Base property, including community reuse. A study will be conducted at that time to examine the overall effects on socioeconomics; that study will be included in the second EIS.

The impacts to the environment from the closure of George AFB will be beneficial in the short term. Long-term impacts are not known because future use of the Base has not been determined.

4.14 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Irreversible and irretrievable commitments of resources due to the closure of George AFB will be minor. Energy usage in the form of fuels will temporarily increase while personnel and materials are transported to receiving Bases. Materials and energy will be used to manufacture packing materials for transporting materials from George AFB to the receiving Bases.

CHAPTER 5.0 - CONSULTATION AND COORDINATION

Listed below are the Federal, State, and local agencies, private organizations, and people that were contacted during the course of preparing this EIS. Table 5.1-1 lists the agencies, organizations, and people who submitted comments during the initial scoping period for this EIS, along with responses to these comments.

TABLE 5.1-1

FEDERAL, STATE, AND LOCAL AGENCIES, ORGANIZATIONS, AND PEOPLE CONTACTED DURING THE PREPARATION OF THIS EIS

Federal

George Air Force Base, Air Traffic Control Operations, CA (contacted D. Caron; J. Rogers; Sgt. Boyson; R. Thackery; Sandra Cuttino (now at Edwards Air Force Base)).
George Air Force Base Hospital, CA (contacted P. Workman).
Edwards Air Force Base, CA (contacted R. Norwood; B. Harik).
U.S. Fish and Wildlife Service, Laguna Niguel, CA (contacted B. Harper).

State

California Department of Fish and Game, Sacramento, CA (contacted E. Hamby).
California Department of Fish and Game, Bishop, CA (contacted V. Bleich).
California State Board of Equalization, Sacramento, CA (contacted A. Lee).

County

San Bernardino County Museum, Redlands, CA (contacted Lester Ross).
San Bernardino County Sheriff's Department, Victorville, CA.
San Bernardino County Superintendent of Schools, CA (contacted R. Vedo).

Local

Adelanto Elementary School District, Adelanto, CA (contacted D. Kincaid).
Apple Valley Unified School District, Apple Valley, CA (contacted A. Bolding).
City of Adelanto, CA (contacted G. Claude).
City of Victorville, CA (contacted A. Most).
Victor Elementary School District, Victorville, CA (contacted D. Gaston).

TABLE 5.1-1 (continued)

FEDERAL, STATE, AND LOCAL AGENCIES, ORGANIZATIONS, AND PEOPLE CONTACTED DURING THE PREPARATION OF THIS EIS

Local (continued)

Victor Valley Community College, Victorville, CA (contacted C. Peterson; R. Johnson).
Victor Valley Community Hospital, Victorville, CA (contacted J. Lewis).
Victor Valley Water District, Victorville, CA (contacted R. Fields).
Victor Valley Union High School District, Victorville, CA (contacted G. Davis).
Victor Valley Wastewater Reclamation Authority, Victorville, CA (contacted T. Gossard; K. Kurtz).
Victorville City Fire Department, Victorville, CA (contacted J. Berg).

Other

Southern California Edison, San Bernardino, CA (contacted S. Hitchcock).
Southwest Gas Corporation, Las Vegas, NV (contacted H. Lee).
St. Mary Desert Hospital, Apple Valley, CA (contacted F. Knight).

CHAPTER 6.0 – LIST OF PREPARERS

This EIS was prepared for the U.S. Air Force by Science Applications International Corporation. Listed in Table 6.1-1 are the SAIC staff members that were responsible for preparing the various sections of this EIS, along with their qualifications.

TABLE 6.1–1

EIS PREPARERS AND THEIR QUALIFICATIONS

Staff Member	Qualifications	Responsibility
John Rush	M.S., Planning	Land Use
Keith Kennedy	M.S., Hydrogeology	Geology, Soils Water, Hazardous Waste
J.B. Turnmire	Ph.D., Civil Engineering	Hazardous Materials
Douglas Cover	B.S., Meteorology	Air Quality and Climate
Dick Ambrose	Ph.D., Ecology	Biological Resources
Craig Woodman	M.A., Anthropology	Cultural Resources and Native American Concerns
Peter Lufkin	M.A., Economics	Socioeconomics
Julie Vossler	M.A., Economics	Socioeconomics
Judith Bradbury	Ph.D., Public and International Affairs; M.S., Sociology	Socioeconomics
Robert Thompson Traffic Control, USAF	B.S., Mathematics Management	Air Space A i r
Jeff Reece	M.S., Civil Engineering	Noise
Edward Oakes	M.S., Geology	Project Manager

CHAPTER 7.0 – REFERENCES

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Boysen, Sgt., August 8, 1989. Air Traffic Control Operations, George Air Force Base, CA. Personal communication with R. Thompson (SAIC).

Caron, D., 1989. George Air Force Base, Victorville, CA. Personal communication with R. Ambrose (SAIC).

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Hitchcock, S., August 15, 1989. Southern California Edison, San Bernardino, CA. Personal communication with S. Perry (SAIC).

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Knight, F., August, 1989. St. Mary Desert Hospital. Apple Valley, CA. Personnal communication with J. Morrissey (SAIC).

Kurtz, K., August 2, 1989. Victor Valley Wastewater Reclamation Authority, Victorville, CA. Personal communication with S. Perry (SAIC).

Lee, A., August 3, 1989. Research Unit, State Board of Equalization, Sacramento, CA. Personal communication with S. Watson (SAIC).

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APPENDIX A

PUBLIC COMMENTS ON THE DRAFT EIS AND RESPONSES

The Draft EIS on the closure of George AFB was issued to the public on December 21, 1989. Public comments were received until February 13, 1990. A public hearing on the Draft EIS was held on January 30, 1990, in Victorville, CA.

Eighteen letters were received concerning the Draft EIS on the closure of George AFB. In addition, seven of the approximately 40 people who attended the public hearing made comments on the Draft EIS.

Copies of each letter, as well as the transcripts of the public hearing, are contained in this appendix. Numbers along the right-hand margin of the letters and transcripts, from 1 through 50, represent a single comment or question. Responses to each comment/question are included on a separate page immediately after each letter. Responses to marked comments in the transcripts (comment numbers 44-50) are included on a separate page immediately preceding the transcripts.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, CA 94105

1 0 FEB 1990

Capt. Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Dear Capt. Cassidy::

The Environmental Protection Agency (EPA) has received the Draft Environmental Impact Statement (DEIS) for the project entitled **Closure of George Air Force Base, California.** Our National Environmental Policy Act (NEPA) review is pursuant to the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act.

The proposed closure is part of the recommendation package prepared by the Defense Secretary's Commission on Base Realignments and Closures. The action described in this DEIS consists of the withdrawal of units from George AFB to Mountain Home AFB, Idaho and Davis-Monthan AFB, Arizona. The relocation includes transfers of personnel, aircraft, and various other equipment and material. Impacts of the relocation on Mountain Home AFB and Davis-Monthan AFB, and of future disposal and reuse of George AFB will be analyzed in separate NEPA documents.

EPA concerns are impacts to hazardous waste cleanups, hazardous waste management, air quality, and long-term protection of valuable natural resources and habitats at George AFB. Based upon our review, we have classified this DEIS as category EC-2, Environmental Concerns - Insufficient Information (see attached "Summary of the EPA Rating System"). To avoid conflicts between moving contractors and hazardous waste cleanup actions, we recommend close coordination between environmental staff and those responsible for relocation activities. Our detailed comments are enclosed.

We encourage the Air Force to consider withdrawal and maintenance alternatives which will maximize and preserve the long-range environmental benefits of their holdings. For instance, the Air Force should consider the transfer of sensitive and especially valuable habitat and natural resources to resource agencies (e.g. Fish and Wildlife Service, National Park Service) in order to provide for their management and protection. If this cannot be accomplished, EPA recommends that preservation of

existing wetland and riparian resources and other valuable habitat be stipulated as a condition of transfer to the private sector, if legally feasible. We encourage the Air Force to include alternatives in the disposal and reuse EIS which will continue to preserve resources. Furthermore, we recommend that any post-closure changes in zoning and land use be made after specific reuse options have been decided through the NEPA process.

EPA believes it is very important to include Federal and State environmental and resource agencies in the base reuse planning process. Given the complex hazardous waste cleanups it is important that the local communities clearly understand potential environmental constraints on base reuse options caused by hazardous waste sites and cleanup actions.

We appreciate the opportunity to comment on the proposed project and request that four copies of the Final Environmental Impact Statement (FEIS) be sent to this office at the same time it is filed with our Washington, D.C. office. We also request notification of any meetings(s) to be held regarding this project. If you have any questions, please contact Ms. Laura Fujii (415) 744-1051, (FTS 484-1051).

Sincerely,

Deanna Wieman, Director
Office of External Affairs

Enclosures: 3 pages

EPA ID# 90-089
cc: AFRCE, San Francisco, Phil Lammi
George AFB, Base Commander
USFWS, Laguna Niguel
USNPS, San Francisco
CA Dept. of Fish & Game, Region 5
HQ EPA/OFA, Sandy Williams
EPA Regions 10
Office of Econ. Adjustment, Ken Matzkin
South Coast AQMD
DOHS, Angelo Bellomo
San Bernardino County, Robert Hammock
Mayor, City of San Bernardino, Evelyn Wilcox
San Bernardino County, Land Management Dept.
Southern California Assoc. of Gov., Mark Pisano

HAZARDOUS WASTE COMMENTS

Hazardous Waste Cleanup

1. EPA is concerned with the impact of the proposed action on the pace and quality of cleanup programs. The FEIS should address in detail impacts to the following.

-- Base environmental staffing. Hazardous waste cleanups are often very complex, labor intensive, lengthy and costly. It is very important to have a full staff of highly qualified experienced personnel **on-site** in order to ensure timely and effective cleanup. We encourage the Air Force to commit to continuing on-site base environmental staffing as long as necessary to accomplish required cleanup actions.

-- Funding for investigation and cleanup needs. EPA is concerned that base closure may reduce the installation's ability to effectively lobby for cleanup funds at the Washington, D.C. level. It is clear that many installations will be vying for an ever-diminishing pot of cleanup funds. The loss of "mission-related" activities, a change in the mission, and loss or reassignment of ranking officers may affect the base's ability to obtain funds. The FEIS should address this issue and describe avenues available to base environmental staff to obtain the necessary funding for continuing long-term cleanup activities. 1

-- Cleanup schedules. Closure should not affect cleanup schedules. The FEIS should discuss in detail how the Air Force plans to accommodate concurrent cleanup and closure actions and avoid traffic and administrative delays and conflicts. Access by Air Force environmental staff and/or their hazardous waste contractors conducting cleanup and investigation activities must be assured.

2. The FEIS should explicitly address whether or not the removal of any Installation Restoration Program (IRP) hazardous waste or materials contaminated with hazardous substances identified under the IRP is planned as part of this phase of the closure activities. 2

3. The DEIS acknowledges the possible change in groundwater flow patterns associated with reduced groundwater withdrawal due to the proposed action (p. 4-2). Changes in groundwater rates could adversely affect the movement of the plume of contamination. The FEIS should identify the measures that will be taken 3

should the base closure and associated changes in groundwater withdrawal rates produce changes in the movement of the contaminated plume. 3

4. The FEIS should address the potential for increased risk of exposure to hazardous substances caused by the proposed closure action and associated potential for reduced security at hazardous waste/substances sites. Measures to be taken to mitigate for this potential increased risk should be discussed in the FEIS. 4

Hazardous Waste Management

1. As with hazardous waste cleanup, EPA is concerned with the impact of the proposed action on the effectiveness and quality of hazardous waste management programs. The FEIS should discuss impacts to base environmental staffing, funding, and compliance schedules. Withdrawal actions should not affect the proper management of hazardous waste or the timely compliance with past and current violations. 1

2. The FEIS should address in more detail the closure plans (e.g. closure schedules, preferred methods, alternative closure methods) and impacts to the inactive Wastewater Treatment Plant and associated treatment/storage ponds, aircraft wash racks, oil/water separators, and hazardous waste storage areas. Describe whether the permits and approvals for the above facilities will be transferred, modified, or terminated. 5

3. The FEIS should describe in more detail the type of underground storage tanks (USTs) (e.g. tank contents, age) and their closure (p. 3-41) (e.g. preferred closure methods, schedules, tank locations, transfer of ownership criteria and conditions). It is unclear whether the 14 UST to be removed (p.3-41) will be removed or abandoned (p. 4-10) as part of the closure action. 6

4. The DEIS states that some of the World War II buildings will be demolished in preparation for Base closure (p. 2-3). The FEIS should address the potential for asbestos and polychlorinated biphenyls (PCB) contamination, and describe and assure proper asbestos and PCB removal prior to demolition. 7

AIR QUALITY COMMENTS

1. The FEIS should describe the status of current and pending air pollution permits and credits (p. 4-2). Describe what will be done with these permits and credits upon transfer or closure of their emission sources. If specific plans for their use are unavailable, discuss alternatives and the preferred alternative for their final transfer, modification or termination. 8

GENERAL COMMENTS

1. Although detailed base closure plans are not yet available (p. 2-1), the FEIS should discuss the proposed preferred alternative closure methods (e.g. mode of transportation) and schedules. If possible, the detailed base closure plans should be incorporated into the FEIS. Such information is necessary to determine the specific impacts to air quality, cleanup actions coordination, and natural resources. 9

2. Footnote #4 for Table 2.1-1 in regards to manpower authorizations is not clear. What is meant by "saved manpower authorizations," and what are the consequences of not transferring these authorizations to a new location? 10

3. The FEIS should address in more detail the final disposition of the Special Use Airspace units (3.23). Discuss the various alternatives and preferred alternative for their transfer and operation (e.g. to whom, when, how). 11

4. The DEIS states that off-road vehicles trespass on the unfenced southern part of the base; damaging vegetation, soil and wildlife (p. 4-3). The withdrawal of units may encourage an increase in such activity. To discourage this activity and to protect the threatened, endangered, and sensitive species on base; we recommend the Air Force consider increasing the frequency of security patrols within this unfenced area after base closure. 12

5. EPA supports the Biological Assessment of the impacts of Base closure on threatened, endangered and sensitive species (p. 4-3). We recommend the Air Force include a systematic survey for the above species as part of this assessment. The Biological Assessment and wildlife survey should be included in the FEIS. 13

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION*

Environmental Impact of the Action

LO—Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC—Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO—Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU—Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1—Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2—Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3—Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Response to detailed comments of Deanna Wieman, Director, Office of External Affairs, U.S. Environmental Protection Agency.

Response to Comment 1: The Installation Restoration Program (IRP) will continue to be an active program at George AFB, even after closure, until all of the sites have been thoroughly investigated. The results of investigations will be analyzed to determine locations where remedial actions (clean-ups) are needed. Feasibility studies will be done to determine the most appropriate remedial action, and then the remedial action will be carried out. The Air Force will not abandon hazardous waste sites, clean-up, or monitoring activities. Either Air Force personnel, or fully-qualified contractors, will continue the required activities. When remedial actions are complete, the Air Force will monitor the sites as necessary to assure the effectiveness of the remedial action. In some cases, long-term monitoring for a number of years may be required. All of the work accomplished by the IRP is coordinated with both the State of California and Region IX of the EPA. The activities associated with closure of George AFB will not affect clean-up actions at the Base.

Funds for clean-up actions are available on a "worst-case first" basis. This is done to ensure that the most serious threats to the public receive the necessary attention. George AFB will receive the same consideration for funding as a active installation. The Air Force fully expects funding to be available to complete required clean-up activities on George, as well as other Air Force Bases.

As stated previously, closure of George AFB will not affect clean-up schedules. The schedules for removal of equipment will be coordinated so as not to interfere with clean-up activities. Access to sites will be available on an as-needed basis.

Response to Comment 2: As stated in the response to comment 1, clean-up of IRP sites is not a part of Base closure. However, restorations of the TCE groundwater plume, as well as a variety of other IRP restoration activities, will continue during and after Base closure. Restoration of site S-20 (industrial outfall and pipeline) will be completed prior to Base closure.

Response to Comment 3: Clean-up of the TCE plume is currently underway at George AFB. In the event that reductions in the rate of groundwater withdrawals due to Base closure caused the rate of TCE plume-dispersion to increase (as demonstrated by sampling monitoring wells), the Air Force would evaluate the risks posed by the dispersion and work with the EPA to correct the problem.

Response to Comment 4: Those IRP sites on George AFB that pose a significant risk to people trespassing on the Base after closure may be fenced and posted. Although the plans for a caretaker force have yet to be fully developed, frequent security patrols of the Base would also limit the risk of exposure to the general public.

Response to Comment 5: The plans and schedule for the closure of George AFB, as described in Chapter 2 of the Draft EIS, are the most complete that are currently available. As stated in Chapter 2, all facilities will be maintained after Base closure until reuse of the Base is determined. Permits and approvals for facilities at the Base are discussed in several places in the Draft EIS (the water-appropriation permit is discussed on page 3-8; air permits are discussed on page 3-11; the Base's interim RCRA permit is discussed on page 3-40; the permitting process for USTs is discussed on page 3-41). The fate of these permits -- whether they will be transferred, modified, or terminated -- depends in large part on the nature of Base reuse, which will be discussed in a subsequent EIS on reuse options.

Response to Comment 6: Most of the USTs are single-wall construction. Approximately 48 percent of the tanks contain diesel fuel; 25 percent contain JP-4 fuel; 18 percent contain unleaded gasoline; and the remaining 9 percent contain contaminated fuels, waste oil, and one tank contains naphtha. The 14 USTs referred to in the comment are not part of the closure action; plans for their removal were announced prior to the announcement of Base closure (the word "abandonment" on page 4-10 is in error; it should read "removal"). The remaining 63 USTs will be temporarily closed in-place for a new user pending approval by the San Bernardino Department of Environmental Health Services of a UST-Closure Plan to be developed by the Base (see page 3-41 of the Draft EIS). County regulations require quarterly inspections of all temporarily-closed tanks, and the county may require other mitigation measures be incorporated into the UST-Closure Plan.

Response to Comment 7: Since issuance of the Draft EIS, plans for demolishing buildings at George AFB have been cancelled. In regard to asbestos, the Air Force policy for management of asbestos on Air Force Bases that are closing is described in Appendix C. In general, asbestos will be removed if (a) the protection of human health, as determined by the Base Bioenvironmental Engineer, requires removal (e.g., exposed, friable asbestos within a building), (b) a building is unsalable without removal, or removal prior to sale is cost-effective, or (c) a building is, or is intended to be, used as a school, child care facility, or hospital. If none of these items apply, the asbestos will be managed using commonly accepted standards, criteria, and procedures to assure sufficient protection of human health and the environment. Prior to the sale of Base properties, a thorough survey for asbestos (including review of facility records, visual inspection, and, where appropriate, intrusive inspection) will be conducted by the Air Force. All appraisal instructions, advertisements for sale, and deeds will contain accurate descriptions of the types, quantities, locations, and condition of asbestos in any real property to be sold or otherwise transferred outside

the Federal Government. Appraisals will indicate what discount the market would apply if the building were to be sold with the asbestos in place. The final Air Force determination regarding the disposition of asbestos will be dependent on the plan for disposal and any reuse of the building. Decisions will, among other things, take into account the proposed community reuse plan for the Base. The course of action to be followed with respect to asbestos at each closing Air Force Base will be analyzed in the Disposal and Reuse Environmental Impact Statement, and will be included in the Record of Decision (ROD). Any buildings or facilities where the proposed asbestos plan is controversial will be addressed in the ROD, either individually or as a class of closely related facilities.

The disposal of PCB-containing transformers and capacitors will be completed prior to Base closure according to Air Force regulations.

Response to Comment 8: Several alternatives exist for air credits for permitted stationary sources at George AFB (as described on page 4-2 of the Draft EIS). The preferred alternative depends on the nature of Base reuse; an issue that will be discussed in the Reuse EIS.

Response to Comment 9: The closure of George AFB is scheduled to be complete by the winter of 1992. The alternative modes of transport for supplies, equipment, personnel (and their belongings), from George to Mountain Home AFB are truck, train, plane, or some combination of the three. As stated in the Draft EIS, detailed plans for Base closure are not yet available. The alternative transport modes mentioned are not sufficiently different to warrant separate analyses in the EIS. The environmental impacts of personnel reductions at dates other than those listed in Table 2.1-1 are also not sufficiently different to warrant separate analyses in the EIS

Response to Comment 10: "Saved manpower authorizations" refer to the number of jobs that are no longer needed; it translates into a direct savings of dollars which is part of the purpose of the Base Closure and Realignment Act (Public Law 100-526). If these authorizations were not transferred to other Bases, the costs associated with closing George AFB would not be realized.

Response to Comment 11: To the extent known, the disposition of Special Use Airspace for which George AFB has responsibility, is discussed on page 4-8 of the Draft EIS.

Response to Comment 12: If trespass becomes a problem after Base closure, the Air Force would, as a matter of necessity, increase security patrols.

Response to Comment 13: A biological assessment of the impacts of Base closure on threatened and endangered species will be submitted to the U.S. Fish and Wildlife Survey (the five category-2 species will also be included). Briefly, the assessment will conclude that no adverse impacts are expected to threatened and endangered species from closing George AFB, as stated in the Draft EIS on page 4-3, Section 4.5.3, line one. The biological field survey of the Base planned for the spring of 1990 is not part of the biological assessment that will be sent to the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act. The results of the field survey will be provided to potential new user(s) of the Base to help avoid and/or mitigate adverse impacts to these species from new uses of the Base. The text in Sections 3.5.3 and 4.5.3 have been modified to more clearly state these distinctions.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
Office of Environmental Affairs
Box 36098 - 450 Golden Gate Avenue
San Francisco, California 94102
(415) 556-8200

February 7, 1990

ER90/35

Capt Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Dear Capt Cassidy,

The Department of the Interior has review the Draft Environmental Statement for the Closure of George Air Force Base, San Bernardino County, California and has no comments. 14

Thank you for the opportunity to review this document.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc: Director, OEA
Reg. Dir., FWS

Response to comments by Patricia Sanderson Port, Regional Environmental Officer, U.S. Department of the Interior.

Response to Comment 14: Thank you for your review of this document.

US Department
of Transportation
**Federal Aviation
Administration**

Western Pacific Region

P.O. Box 92007
Worldway Postal Center
Los Angeles, CA 90009

JAN 8 1990

Captain Wilfred Cassidy
HQ TAC/DEEV
Langley Air Force Base, Virginia 23665-5542

Dear Captain Cassidy:

The enclosed draft Environmental Impact Statement (EIS) for the closure of George Air Force Base has been reviewed, and we would like to express our interest/concerns in protecting existing Federal Aviation Administration (FAA) facilities located on and/or adjacent to George Air Force Base. Of specific concern is continuing availability of utilities (water, sewer, power, and telephone), rights of ingress/egress, easements restricting growth of vegetation and construction that could affect or derogate facility performance, removal of FAA equipment that may be decommissioned as a result of base closure, and property rights to the real estate on which FAA facilities are located. The necessary lands, easements, etc., should be transferred to the FAA at no cost. 15

Should you have any questions or need further assistance, please contact Cliff Rustad at (213) 297-1684.

Sincerely,

for Donald Sorn

Alex Hammond
Manager, Airway Facilities Division

Enclosure

Response to comments by Alex Hammond, Manager, Airway Facilities Division, Federal Aviation Authority, U.S. Department of Transportation.

Response to Comment 15: Utilities, Rights-of-Way, easements, etc., will be maintained until a decision is made regarding reuse of the Base (an issue to be explored in a subsequent EIS on reuse of George AFB). Transfer of land, easements, etc., to the FAA is a reuse issue that will be discussed in the reuse EIS.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333

January 31, 1990

Capt. Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, Virginia 23665-5542

Dear Capt. Cassidy:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the Closure of George Air Force Base, California. We are responding on behalf of the U.S. Public Health Service.

The impacts to the environment from closure of George AFB should be beneficial in the short term, however, long-term impacts are not fully understood because future use of the Base is undetermined. We note that a second EIS will be prepared to cover the final disposition of Base property, including potential reuse. Because rapid growth is expected to further encroach on the project area, we recommend that land use modifications close to the Base be restrictive to the extent possible until a final decision is made regarding final disposition. This effort may assist in mitigating potential long-term impacts on the community. 16

One of our concerns is the current contamination onsite. Contaminiation of ground water at George AFB is "well documented." Because groundwater is the source of both private and public drinking water in the project area, we stress the importance of adequately addressing this concern in the existing Installation Restoration Program (IRP), and the need to continue adequate periodic monitoring of the groundwater to ensure that potential public health impacts do not occur through contaminated drinking water. We do note that it is the intention of the Air Force to continue the IRP, and that this program is independent of the Base closure. 17

It is stated that completion of an asbestos survey on Base is planned for disclosure to potential reusers, and this survey will be accomplished prior to disposition of the facilities. In addition to ensuring the completion of this survey before any buildings are demolished, we recommend close adherence to applicable provisions of the Occupational Safety and Health Act. 18

Thank you for the opportunity to review and comment on this DEIS. Please insure that we are included on your mailing list to receive a copy of the 19

final document, and future DEIS's which may indicate potential public health impact and are developed under the National Environmental Policy Act (NEPA).] 19

Sincerely yours,

Kenneth W. Holt

Kenneth W. Holt, M.S.E.H.
Environmental Health Scientist
Center for Environmental Health
and Injury Control

Response to comments by Kenneth W. Holt, Environmental Health Scientist, U.S. Public Health Service, U.S. Department of Health & Human Services.

Response to Comment 16: In the last paragraph on page 4-8, the Air Force is on record encouraging the retention of current zoning restrictions by nearby communities until after a final decision in made concerning reuse of George AFB.

Response to Comment 17: See responses to comments 1, 2, and 4.

Response to Comment 18: See response to comment 7.

Response to Comment 19: Your name has been added to the mailing list for the Final EIS.

State of California

GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

ORGE DEUKMEJIAN
GOVERNOR

(916) 323-7480

DATE: February 8, 1990

TO: U. S. Department of the Air Force
HQ TAC/DEV
ATTN: Captain Wilfred Cassidy
Langley AFB, VA 23685-5542

FROM: Office of Planning and Research
State Clearinghouse

RE: Draft Environmental Impact Statement for the Closure of George Air Force Base, San Bernardino County
(SCH 89031001)

As the designated California Single Point of Contact, pursuant to Executive Order 12372, the Office of Planning and Research transmits attached comments as the State Process Recommendation.

This recommendation is a consensus; no opposing comments have been received. Initiation of the "accommodate or explain" response by your agency is, therefore, in effect.

Sincerely,

Robert P. Martinez
Director

Attachment

cc: Applicant

Resources Building
1416 Ninth Street
95814
(916) 445-5656
TDD (916) 324-0804

California Conservation Corps
Department of Boating and Waterways
Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Parks and Recreation
Department of Water Resources

GEORGE DEUKMEJIAN
GOVERNOR OF
CALIFORNIA

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

Air Resources Board
California Coastal Commission
California Tahoe Conservancy
California Waste Management Board
Colorado River Board
Energy Resources Conservation And Development Commission
San Francisco Bay Conservation and Development Commission
State Coastal Conservancy
State Lands Division
State Reclamation Board
State Water Resources Control Board
Regional Water Quality Control Boards

U. S. Department of the Air Force
HQ TAC/DEV
ATTN: Captain Wilfred Cassidy
Langley AFB, VA 23685-5542

February 8, 1990

Dear Captain Cassidy:

The State has reviewed the Draft Environmental Impact Statement for the Closure of George Air Force Base, San Bernardino County, submitted through the Office of Planning and Research.

We coordinated review of this document with the Lahontan Regional Water Quality Control Board, the Air Resources Board, and the Departments of Fish and Game, Health Services, Parks and Recreation, and Transportation.

The Department of Transportation commented directly in correspondence dated January 30, 1990.

20

Thank you for providing an opportunity to review this project.

Sincerely,

for Gordon F. Snow, Ph.D
Assistant Secretary for Resources

cc: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
(SCH 89031001)

Response to comments by Gordon F. Snow, Assistant Secretary for Resources, The Resources Agency of California (transmitted to the Air Force via Robert P. Martinez, Director, Office of Planning and Research, Governor's Office, State of California)

Response to Comment 20: Thank you for your review of this document.

STATE OF CALIFORNIA GEORGE DEUKMEJIAN, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION
VICTORVILLE BRANCH OFFICE
15428 CIVIC DRIVE, SUITE 100
VICTORVILLE, CA 92392-2359
(619) 241-6583

February 13, 1990

Wilfred Cassidy, Captain USAF
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Dear Captain Cassidy:

DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE CLOSURE OF GEORGE AIR FORCE BASE, SAN BERNARDINO COUNTY

We have reviewed the subject draft EIS for the closure of George Air Force Base and have the following comments:

1. In Sections 3.11 and 4.11 the document correctly acknowledges the need to investigate and mitigate the negative environmental effects of past waste disposal practices as identified in the Installation Restoration Program (IRP) in progress at the Base. 21

2. We concur with the document's recognition that it is the responsibility of the U. S. Air Force to investigate and remediate any contaminated sites on the Base as may be required. 22

If you have any questions or comments, please contact me or Michael B. Wochnick in our Victorville office at (619) 241-6583.

Sincerely,

Theodore R. Saari
Associate Engineer

ts

cc: George AFB/Commander

Response to comments by Theodore R. Saari, Associate Engineer, California Regional Water Quality Control Board, Lahonton Region.

Response to Comment 21: Thank you for your review of this document.

Response to Comment 22: Thank you for your review of this document.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8, P.O. BOX 231
SAN BERNARDINO, CA 92402
TDD (714) 383-4609

January 30, 1990

08-SBd-15-42.0

SCH# 89031001

Captain Wilfred Cassi
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Dear Captain Cassidy:

Draft Environmental Impact Statement
for the Closure of George Air Force Base

We have reviewed the above-referenced document and have no comments at this time except that the Air Force should coordinate with Caltrans on the movement of heavy equipment on the State highway. 23

If you have any questions, please contact Richard Malacoff at ATSS 670-4550 or (714) 383-4550.

Very truly yours,

HARVEY J. SAWYER
Chief, Transportation Planning
Branch B

Response to comments by Harvey J. Sawyer, Chief, Transportation Planning, Branch B, California Department of Transportation.

Response to Comment 23: The Air Force will coordinate its Base closure efforts with Caltrans regarding any transport of heavy equipment along California State highways.

ENVIRONMENTAL HEALTH SERVICES

COUNTY OF SAN BERNARDINO
ENVIRONMENTAL
PUBLIC WORKS AGENCY

☒ 385 North Arrowhead Avenue • San Bernardino, CA 92415-0160 • (714) 387-4646
☐ 320 East "D" Street • Ontario, CA 91764 • (714) 391-7570
☐ 15505 Civic Drive • Victorville, CA 92392 • (619) 243-8141
☐ 17830 Arrow Highway • Fontana, CA 92335 • (714) 829-6244
☐ 57407 Twentynine Palms Highway • Yucca Valley, CA 92284
☐ San Bernardino County Vector Control Program
2355 East Fifth Street • San Bernardino, Ca 92415 • (714) 383-3200
☐ Environmental Enforcement and Housing
172 West Third Street • San Bernardino, CA 92415-0315 • (714) 387-6512/6515
☐ Air Pollution Control District
15428 Civic Drive, Suite 200, Victorville, CA 92392 • (619) 243-8200

PAUL F. RYAN, R.E.H.S.
Director

Also serving the cities of:

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Grand Terrace	San Bernardino
Hesperia	Twentynine Palms
Highland	Upland

Victorville

February 12, 1990

Department of the Air Force
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Attention: Captain Wilfred Cassidy

This Department has had an opportunity to review the Draft Environmental Impact Statement. The preliminary identification of areas that require further investigation of hazardous materials appears adequate at this time. During the investigation, the procedures that will be used, along with the specific sampling and testing methods, needs to be provided to this Department for our review and evaluation prior to the commencement of any mitigation work at the base. This Department needs to maintain an open dialogue with the Base with regard to cleanup levels in that all information obtained will be required to be conveyed to the public as required by law. **24**

Proper hazardous materials and solid waste management procedures also need to be practiced and stringently adhered to while the base is still in operation and during mitigation. Since the Department has not received or reviewed the Hazardous Waste Management Plan for George AFB, we request you forward a copy to us at your earliest convenience. **25** Further, existing and currently used UST's must be maintained to meet the current minimum federal, state and local standards and requirements. **26**

Coordination and communication concerning all hazardous materials and waste management activities at George AFB needs to be closely communicated with this Department to assure proper compliance with all applicable hazardous materials control laws. **27**

Our Department is desirous to cooperate with George AFB in accomplishing an environmentally sound base closure in accordance with federal, state and local cleanup levels. These levels will then be readily available for disclosure to the public and thereby meet the needs of the community.

PETER BRIERTY, R.E.H.S.
DIVISION CHIEF
HAZARDOUS MATERIALS MANAGEMENT
(714) 387-3200

SVS:lg

Response to comments by Peter Brierty, Division Chief, Hazardous Materials Management, County of San Bernardino, Environmental Public Works Agency, Environmental Health Services

Response to Comment 24: The Air Force will keep Environmental Health Services informed of all procedures and sampling/testing methods to be used to clean up hazardous materials at the Base as has been done in the past. The program to clean up hazardous wastes at the Base is not part of Base closure (see discussion under response to comment 1).

Response to Comment 25: A copy of the Hazardous Waste Management Plan for George AFB was sent to Environmental Health Services under separate letter dated March 9, 1990.

Response to Comment 26: An Underground Storage Tank Management Plan for George AFB will be completed in 1990. Funding for the program is expected sometime in 1990 or early 1991. The plan includes an inventory of tanks on Base, their construction, and their capacity. The plan will include recommendations on whether the USTs are required for current operations. All active tanks will be leak tested to make sure they are not leaking contaminants into nearby soils. (Also see the discussion under the response to comment 6.)

Response to Comment 27: The Air Force fully intends to comply with all Federal, State, and local regulations concerning hazardous materials and waste-management activities at George AFB.

TRANSPORTATION/FLOOD CONTROL
DEPARTMENT

825 East Third Street • San Bernardino, CA 92415-0835 • (714) 387-2800

COUNTY OF SAN BERNARDINO
ENVIRONMENTAL
PUBLIC WORKS AGENCY

KEN A. MILLER
Director

February 5, 1990

Capt Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

TPM: 36.22
117

Dear Capt Cassidy:

We have reviewed the Draft Environmental Impact Statement (EIR) for the closure of George Air Force Base, California.

It is our understanding that the proposed closure will result in a decrease in area traffic. Since this decrease will have a beneficial impact on the transportation network, we have no comment on the EIR. 28

Very truly yours,

CHARLES L. LAIRD
Assistant Director
Planning

LCG:nk

cc: KAM/FVC/JAS - R/F

Response to comments by Charles L, Laird, Assistant Director of Planning, County of San Bernardino, Environmental Public Works Agency, Transportation/Flood Control Department.

Response to Comment 28: Thank you for your review of this document.

City of Hesperia

15888 Main Street, Suite 213 • P.O. Box 2966 • Hesperia, California 92345 • (619) 947-1000

February 9, 1990

Captain Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665

Dear Captain Cassidy:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (D.E.I.S.) for the closure of George Air Force Base.

After careful consideration of the D.E.I.S., the City of Hesperia would like to go on record with the following comments:

1. The base closure would significantly reduce the number of military personnel contributing to all aspects of the local economy. Though the effects of reduced military spending in the area might not be felt on a short-term basis, the potential exists for a reduction in the long-term tax base of the City. Consequently, this potential impact may warrant further analysis in the Final Environmental Impact Statement. **29**

2. The base site will almost certainly be reutilized in the future. However, it is uncertain at this point as to what use or uses might occur. Because certain uses may have the potential to directly or indirectly impact the City of Hesperia (i.e. a commercial airport, detention facility, educational institution, etc.), the City believes that the issue of base reuse should be examined more closely. **30**

These comments represent the City of Hesperia's official position on the D.E.I.S.

Should you have any questions or require clarification on this matter, please contact Brad Weekley, Associate Planner at (619) 947-1224. A copy of the Final Environmental Impact Statement should also be directed to him.

Sincerely,

BRUCE D. KITCHEN
Mayor

BDK:rb
georgex1.ltr

cc: Robert A. Rizzo, City Manager
City Council members
Planning Commission members
Molly Bogh, Planning Director
Thomas K. Harp, Building Official
Stephen Hawkins, Public Works Director
Phil Wray, Deputy City Engineer
File - G.A.F.B. Task Force

Response to comments by Bruce D. Kitchen, Mayor, City of Hesperia

Response to Comment 29: An EIS is required to discuss socioeconomic effects only when such effects are interrelated with natural or physical effects. During preparation of this EIS the Air Force considered whether any indirect biophysical effects could be attributed to socioeconomic impacts, and found none. Impacts on the tax base, and ways in which reuse would affect it, will be explored in a subsequent EIS on reuse of the Base.

Response to Comment 30: Your concerns are understandable. However, the potential reuse of the Base will be the subject of a subsequent EIS on Base reuse.

CITY OF
VICTORVILLE

619-245-3411
FAX 619-245-7243

14343 Civic Drive
Victorville, California 92392-2399

February 7, 1990

Capt. Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Dear Captain Cassidy:

On December 27, 1989 I received a copy of the document entitled, "Closure of George Air Force Base San Bernardino County, California, Draft Environmental Impact Statement" and referred the matter to the City of Victorville's Director of Planning and Development, John R. Hnatek. Mr. Hnatek is responsible for preparing and reviewing the Draft Environmental Impact Reports and, therefore, was asked to provide review and recommendations to the City and, specifically, to Mayor Jim Busby, who is the City's representative on the Victor Valley Economic Development Authority.

Mr. Hnatek has reviewed the document and has concerns with Figure 3.91 on Page 3-27 entitled, "Day-Night average (LDn) noise contours, in decibels (dB), for current operations at George Air Force Base". Mr. Hnatek points out that the noise contours are conclusively wrong. It appears that most of the inaccuracy of the contours comes from repositioning (relocating) the contours 180 degrees from the contours shown in the George Air Force Base Air Installation Compatible Use Zone (AICUZ) Study. Mr. Hnatek states that if the contours were relocated 180 degrees they would more accurately represent the contour lines shown within the AICUZ Study with the exception of contours in the Parker Heights/Turner Road area. Mr. Hnatek points out that while it appears that the information has come from Victorville, or that Victorville is responsible for those lines, in actuality none of the City's documents display contour lines as displayed in this Environmental Impact Report. 31

We, therefore, suggest that any contour lines relating to the ACUIZ Study be those utilized by George Air Force Base, not Victorville, since the source is a George Air Force Base study and it is the

ACUIZ Study that was recommended by George Air Force Base to the City originally. We request that these matters be clarified before further comments are submitted. 31

Very truly yours,

James L. Cox
City Manager

JLC/cs

cc: Victor Valley Economic Development Authority

805.29/gafbeir.jlc

Response to comments by James L. Cox, City Manager, City of Victorville

Response to Comment 31: The noise contours shown on pages 3-28 and 3-29 of the Draft EIS were developed at Tyndall AFB based on noise-sampling data collected in 1989 after the announcement that George AFB would be closing. These contours have not been published previously. Base closure, however, will make even these newest noise contours obsolete in that after Base closure, very few aircraft will be using George AFB.

TOWN OF APPLE VALLEY

22573 Highway 18
P.O. Box 429
Apple Valley, CA 92307

February 1, 1990

Captain Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Subject: Draft Environmental Impact Report (Draft EIS) for Closure of George Air Force Base, San Bernardino, California

Dear Captain Cassidy:

Thank you for providing a copy of the Draft EIS for closure of George Air Force Base. At this time we do not have any comments. 32

Please notify us of future meetings and forward any new reports to our attention. Thank you.

Sincerely,

TOWN OF APPLE VALLEY

Gerald Hernandez
Senior Planner

Steve R. Jiannino
Senior Planner

GH:pp

GAFBM/MISC/PP

(619) 240-7000 FAX (619) 240-7399

Response to comments by Gerald Hernandez and Steve R. Jiannino, Senior Planners, Town of Apple Valley.

Response to Comment 32: Thank you for your review of this document. Your name has been added to the mailing list for the Final EIS.

Adelanto School District

February 8, 1990

ADMINISTRATIVE OFFICES

11824 AIR BASE ROAD
P O DRAWER 70
ADELANTO CALIFORNIA 92301
(619) 246-8691
FAX # 619-246-4259

DAVID R KINCAID
DISTRICT SUPERINTENDENT
246-8691

DONALD F BRADACH
ASSISTANT SUPERINTENDENT
246-8692

CURRICULUM CENTER
246-8693

TRANSPORTATION
246-8694

SPECIAL SERVICES
246-4155

CHILD NUTRITIONAL SERVICES
246-4156

ADELANTO SCHOOL

17931 JONATHAN STREET
ADELANTO CALIFORNIA 92301
246-5892

MELVA DAVIS PRINCIPAL

GEORGE AIR BASE SCHOOL

620 NEVADA STREET
GEORGE A F B CALIFORNIA 92394
246-8231

VICTORIA MAGATHAN PRINCIPAL

HARRY R. SHEPPARD SCHOOL

930 McCOY CIRCLE DRIVE
GEORGE A F B CALIFORNIA 92394
246-8021

BILLY R FORTE' PRINCIPAL

WESTSIDE PARK SCHOOL

18270 CASABA ROAD
ADELANTO CALIFORNIA 92301
246-4118

JAMES P NARANJO PRINCIPAL

HAROLD H. BENDER SCHOOL

RACCOON AND CRIPPEN STREETS
ADELANTO CALIFORNIA 92301
246-5608

BARBARA HAMILTON PRINCIPAL

Capt. Wilfred Cassidy
HQTAC/DEEV
Langley AFB, VA 23665-5542

Dear Capt. Cassidy:

The Adelanto School District has completed a review of the Draft Environmental Impact Statement on the closure of George AFB and would like to submit the following comments relative to the information contained in the document.

Our first concern relates to the list on page 5-1, Chapter 5.0, "Consultation and Coordination" that does not reference the Federal Environmental Protection Agency, the State of California Department of Health Services, in particular the Toxic Substances Control Division, and the Environmental Public Works Agency of the San Bernardino County Environmental Health Services. Exclusion of the above listed public environmental agencies would lead us to believe that they were not contacted when the document was being formulated. If that is the case, then the Draft EIR needs to be submitted to those agencies for review and any action they might deem necessary. 33

Our second concern is referenced on Page 3.5 at the bottom of the page when the EIR states, "Surface waters that drain the Base during times of heavy precipitation would probably be contaminated with a variety of materials." It seems that the times when heavy precipitation occurs, the eastern half of the Base (Fig. 3.3-1) drains the "contaminated" water directly to the Mojave River with the "variety of materials" being fed upstream to the neighboring communities to the north. To say that "no samples of surface run off have been taken at George; hence no water quality information exists" is totally unacceptable in preparation of the EIR for George. Your comments have no value because the research in this area was inadequate. 34

Our third concern relates to table 3.11-1 "Waste Sites and Disposal Area Investigations" located on pp. 3-33,3-34 and 3-36. Since the early 1940's the Air Force has deposited a wide range of environmentally unacceptable wastes into the bosom of Mother Earth. The lists as contained in the E.I.R. (enclosure) reflect the identification of location and possible contaminates of the particular location; however, we want to know exactly what is the Air Force going to do to mitigate the effects at the L-A tetraethyllead disposal site or what will be done with the L-3 Radioactive waste and the B-8 pesticide and paint location. The lists as provided in table 3.11-1 that concerns the future of the reuse of George to the point that consideration is justified and action should be taken to include the Base on the National Priority List for a Superfund designation. 35

Our next concern is that the EIR document states that sixty-three underground storage tanks will remain and "be temporarily closed in place so that they could be reactivated by a new user of the Base." The EIR does not tell us that the tanks are single wall or double wall. The EIR does not tell us the age of the sixty-three remaining USTs. The EIR report on USTs leaves a lot of unanswered questions that will come to mind by a Base reuse organization and the most important question to be addressed is who will assume the financial liability for the future removal of the USTs when they start to leak after the Air Force leaves? We feel very strongly that the Air Force put the tanks into the ground and the Air Force should be required to remove <u>all</u> the USTs before the Base is closed. 36

And finally, we would like to comment on the topic of asbestos that is found on page 3-42. A survey, as you suggest, that "consists of a records search of as-built blueprints and renovation records" may not reflect the true status of asbestos in buildings constructed in the 1940's and 1950's. We have experienced the asbestos identification problems in our District and can tell you the only accurate method of identification is by sample and chemical analysis. Therefore, our comment to the EIR 37

asbestos is that you sample and test for accurate asbestos identification. 37

Sincerely,

Donald F. Bradach
Assistant Superintendent

DFB:lc

Enclosures: List of Waste Sites
Table 3.11-1-EIR
George AFB

cc: Dave Kincaid, Superintendent

Trustees

Robert P. Hoffman, Esq., State of Calif.
Dept. of Health Services

Donald H. Lanier, U.S. Environmental
Protection Agency

Diane Christensen, R.S.,
Dept. of Environmental Health Services
San Bernardino County

Col. Ralph E. Duncan
Commander 831 C.S.G.
George AFB

Baxter Williams, Coordinator,
George AFB Reuse

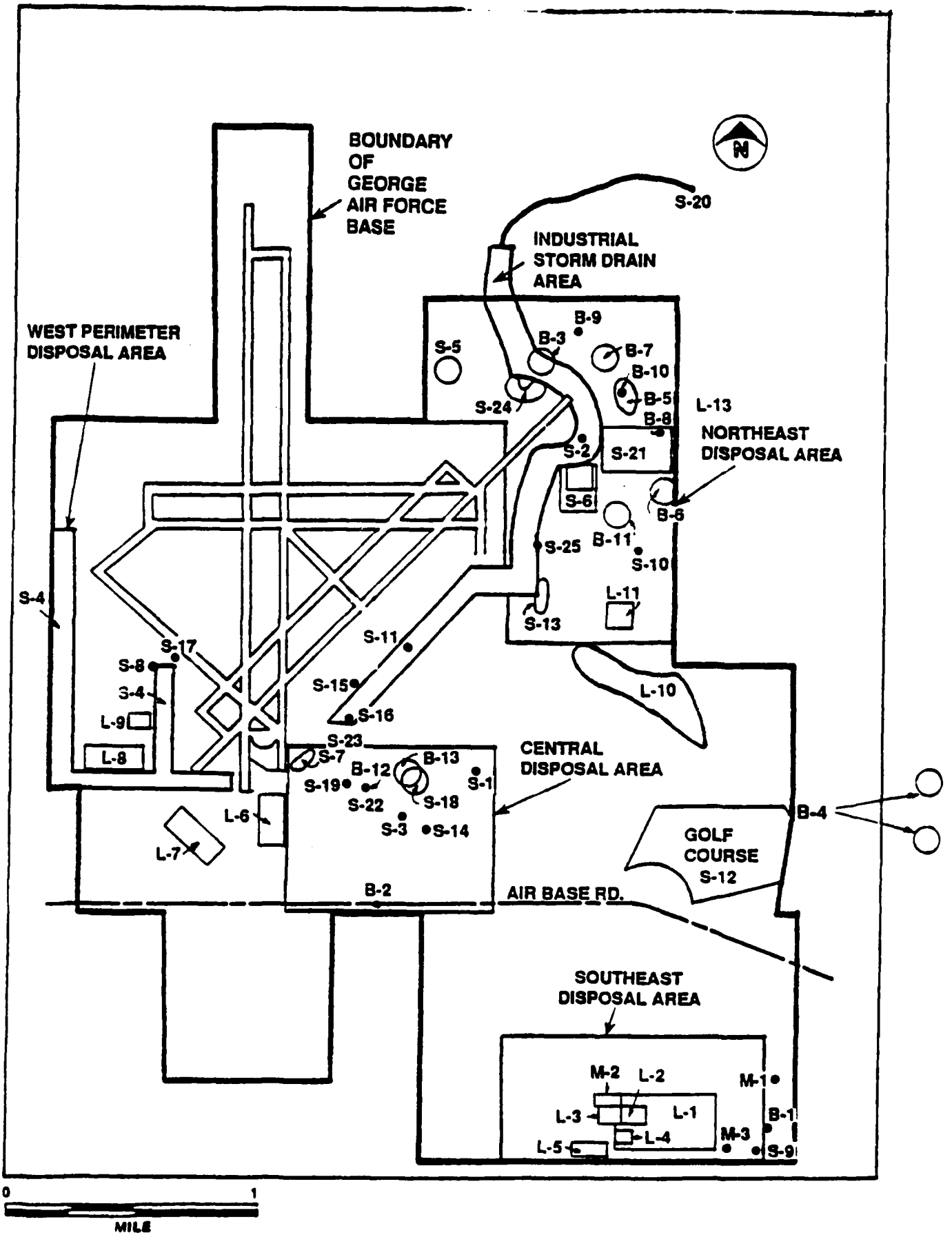

Figure 3.11-1. Location of IRP sites and waste disposal areas at George Air Force Base.

TABLE 3.11-1

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3 11-1)

Site	Site Description/Name	Location and Waste Description
Munitions		
M-1	Munitions	East of existing grenade range near abandoned small-arms range. 20 mm cartridges and grenade debris. Concrete-lined burn pit with paint cans. Unverified TNT & nitroglycerine burial near the burn pit.
M-2	Munitions/oil	South of Air Base Road. Trench (225'x60'x10') with small-arms munitions residues. Waste oils from auto hobby shop also possible.
M-3	Munitions/bombs	Burial area (50' by 50'), south of abandoned small-arms range. Burned practice bombs and small arms cartridges.
Landfills		
L-1	Base landfill	South of Air Base Road adjacent to abandoned small arms range. Lube oil, paint, laquer, naphthalene, PD-680, trichloroethylene (TCE), cleaning compounds, hydraulic fluid, firefighting foam, batteries, oil spill absorbent, and general refuse disposal. Unverified barrels of acetone in southeast corner. Waste oil and fuel were used to burn materials in landfill.
L-2	Tetraethyllead disposal	Within west boundary of L-1 Bottoms from fuel tanks and leaded fuel tank sludge. Possible trench (200'x15'x20') for JP-4 tank sludge in 1966.
L-3	Radioactive waste disposal	Directly west of site L-2 Unverified low-level radioactive wastes (vacuum tubes). Possible toxic chemicals.
L-4	Landfill cartridges	South of site L-3; jet engine starter cartridges.
L-5	Landfill paper	Southwest of site L-1; landfill with unburned paper.
L-6	Wood/debris disposal	South of Perimeter Road, northwest of existing skeet range. Wooden timbers and other debris. Possible barracks demolition (asbestos and fiberglass).
L-7	Construction debris/borrow pit	South of Perimeter Road. Borrow pit filled with construction debris (pavement, rock).
L-8	Road materials burial	West of Perimeter Road. Concrete, asphalt and rubble. Unverified disposal of aircraft parts and trash in 1940s.
L-9	Trash disposal	North of site L-8. Miscellaneous trash disposal.
L-10	Construction debris/trash	Beneath northern and eastern parts of residential area. Construction debris and rubble. Trash dumping and burning in 1950s, debris removal in 1970s.

TABLE 3.11-1 (continued)

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
L-11	Street sweepings	North of residential area. Street sweepings. Possible trash and rubble in 1960s, 1970s. All Base waste from 1953 to 1957, similar to wastes at L-1, with possible buring using waste oil in 1950s.
L-12	Original Base landfill	Under Bldg 761 (alert hangar) and apron. Non-salvageable materials (tools, POL, jeeps, scooters, war supplies after 1946). Incinerated ash form all Base trash burning prior to 1950. Miscellaneous dumping and buring until 1950.
L-13	Base landfill/fuel	East of the alert barn. Minimal fuel disposal. All Base wastes after closure in 1970 of site L-1.
Dumps		
B-1	Chemical toilet sludge	Southeast of abandoned small arms range. Chemical toilet sludge
B-2	Paint drum burial	East of existing skeet range, adjacent to Air Base Road. 400 gallons of leaded paint in 1952.
B-3	Riprap for industrial drain discharge gully	Along the industrial drain discharge gully. Riprap materials from small empty cans and construction rubble.
B-4	Riprap for off-Base water supply	At the off-Base water supply wells. Riprap materials from small empty cans and construction rubble.
B-5	Rubble disposal	North of site L-13. Small rubble.
B-6	Miscellaneous trash/ rubble disposal	East of STP percolation ponds, adjacent to Base boundary. Misc. domestic trash and rubble in small area.
B-7	Construction demolition	Northeast of Runway 03. Small construction demolition disposal area.
B-8	Pesticide and paint burial	Southeast of site B-5. Unverified DDT, copper sulfate, and leaded paint.
B-9	Acid and oil burial	Northeast of northeast end of Runway 03. Unverified HCl, H_2SO_4, oil, fuel and unidentified drum burial.
B-10	Pesticide and oil burial	Northeast of Runway 03. Unverified pesticides and oil drums.
B-11	F-111 aircraft burial	Southeast of STP percolation ponds. An F-111 burial site.
B-12	Aircraft parts burial	Miscellaneous airplane parts, possibly in old salvage yard area.

TABLE 3.11-1 (continued)

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
B-13	Salvage yard	The Base salvage yard since 1950. Possible munitions burial.
B-A	Aircraft crash residue	Ten events over a widespread area. Aircraft parts.
B-B	Earth embankment firing range	At abandoned runway. Spent firearms and munition waste.
Liquid Disposal or Spills		
S-1	Petroleum, oil, lubricant (POL) leach field	Leach field waste POL (trucks).
S-2	Leach field	Leach field sanitary wastes, aircraft maintenance waste.
S-3	POL leach field	Leach field waste POL (vehicles), fuels lab.
S-4	Fuel and oil disposal	On perimeter road near engine test cells, off northwest end of abandoned runway. Waste jet fuel dumped on surface from bowsers.
S-5	Fire training area	At existing fire training area. Burnt waste oils and fuels.
S-6	Abandoned fire training	South of, and possibly under, the STP percolation ponds. Abandoned fire training area with burnt waste oil and fuel. Storage yard with oil, asphalt and pallative spills.
S-7	Tip tank drainage area	Wing tip fuel drainage area.
S-8	Test cell 799	Periodic jet fuel spills.
S-9	Creosote spill area	Near munitions disposal area south of abandoned small arms range. Possible creosote spills.
S-10	Jet fuel spill	East of missile maintenance area. Jet fuel spill-quantity unknown.
S-11	Bldg 708 pipeline leak	Jet fuel pipeline leak; quantity unknown.
S-12	Golf course	At golf course. STP percolation pond effluent.
S-13	Fuel spill collection point	Near intersection of Phantom and Desert Streets. Accumulation point for jet fuel accidentally discharged in 1980.
S-14	Bldg 690 pipeline leak	Near POL bulk fuel storage at Bldg 549. Possible 36,000 gallon jet fuel pipeline leak (est. < 1000 gal.)
S-15	Faulty construction leak	Southwest end of operational apron. Jet fuel leaks at hydrants.
S-16	Bldg 690 gasoline spill	Leaded gasoline spills prior to mid-1950s.

TABLE 3.11-1 (continued)

WASTE SITES AND DISPOSAL AREA INVESTIGATIONS
(Site locations are shown on Figure 3.11-1)

Site	Site Description/Name	Location and Waste Description
S-17	Bldg 819 fuel spill	8,000 gallon jet-fuel spill in 1950s.
S-18	Salvage yard liquids spill	Small spills of solvents, waste oils, and other liquids.
S-19	Bldg 560 (transformer storage)	Temporary storage area for unserviceable transformers. Minor leaks of oil from transformers.
S-20	Industrial outfall and pipeline	At northeast corner of the Base. Industrial/stormwater outfall gully with waste oils, fuels, solvents, paint strippers. STP percolation ponds located here in 1940s.
S-21	STP percolation ponds	South of alert hangar. STP percolation ponds for sanitary wastes. Waste oils and solvents enter sanitary system. Abandoned fire training area may underlie ponds.
S-22	French drain	Brick-lined drywell (30'x4' diameter) for equipment POL disposal.
S-23	French drain	Abandoned drain pit/drywell jet-fuel disposal.
S-24	Sewage sludge disposal	Along industrial discharge gully north of runway. Sewage sludge.
S-25	Sludge drying beds	Sludge drying beds for sanitary and industrial primary sludges from residential and shop discharges to sewer.
S-A	Shop waste	Undocumented locations. Misc. shop wastes including TCE.
S-B	Rinse water	Undocumented locations. Pesticide-containers rinse water.
S-C	Sewage sludge	Perimeter Road and undocumented locations. Sewer sludge.
S-D	Transformer malfunction sites	Various transformers (<10). Small amounts of transformer oil.
S-E	Outlying revetments	Possibly all outlying revetments. Miscellaneous spills.
Other On-Base Sites		
NPSR	Non point source residential housing	East-central part of Base in housing area. Roadway and surface runoff from area.
LFDS	Liquid fuel distribution system	About 25,000' of 8", 10" step pipe from the operational apron south to and terminating at site S-14.

Source: CH2M Hill (1982); SAIC (1987)

Response to comments by Donald F. Bradach, Assistant Superintendent, Adelanto School District

Response to Comment 33: Each of the agencies mentioned (the Federal Environmental Protection Agency, the Toxic Substances Control Division of the California Department of Health Services, and the Environmental Public Works Agency of the San Bernardino County Environmental Health Services) has received copies of the Draft EIS for review.

Response to Comment 34: The quality of water that drains George AFB during particularly heavy storms will vary based on the type and duration of activities at the Base and the number of vehicles; this is true for any urban area. George AFB has carried out its mission according to applicable environmental laws that have been enacted through the years to help prevent and/or minimize the discharge of pollutants to the environment. The Base's good-faith efforts to document and clean up the lead contamination associated with the Industrial Storm Drain (described on page 3-38 of the Draft EIS) is an example of the Air Force's commitment to remediate environmental problems related to water quality.

Response to Comment 35: Clean up of hazardous-waste sites, including the L-A tetraethyllead site, the L-3 radioactive waste site, and the B-8 pesticide/paint site, will be accomplished under the Air Force's Installation Restoration Program, which is independent of Base closure (see response to comment 1). The discussion of hazardous wastes and IRP studies in this EIS is intended to be general. Specific information in the form of formal reports is available as the investigations and remedial action plans are approved by Federal, State, and local agencies.

Response to Comment 36: Most of the 77 USTs on the Base are single-walled steel construction. Fourteen USTs were already scheduled for removal prior to the decision to close George AFB; the remaining 63 USTs will be temporarily closed in-place for use by a new Base operator (see response to comment 6). If any tanks begin leaking prior to a new user assuming control of the facilities, or if any tanks will not be required by a new user, the Air Force would be liable for removal of the tank(s) and remediation of the site. Note that of the 24 tanks removed from the Base to date, only one was leaking, and this was due to improper installation. Also, see response to comment 26.

Response to Comment 37: See response to comment 7.

HI-DESERT INTERNATIONAL AIRPORT (PROPOSED)

Adelanto-George AFB Re-Use Authority

CHAIRMAN
dward Dondelinger
yor. City of Adelanto

VICE CHAIRMAN
Delmar Ulrick

MEMBERS
Charlotte Y. Foster
Mary L. Scarpa
Frank L. Harris, Jr.

XECUTIVE DIRECTOR
Ivan L. Hopkins

ECUTIVE SECRETARY
Pat Chamberlaine

December 28, 1989

Captain Wilford Cassidy
Headquarters TAC/DEEV
Langley AFB, VA 23365-5542

Re: George Air Force Base, California

Dear Captain Cassidy:

In the recently received copy of the Environmental Impact Statement Re-Closure of George Air Force Base, San Bernardino County, California reference is made on page 2-3 that certain buildings on George AFB are scheduled to be demolished in preparation of the Base Closure.

This office would appreciate receiving a list of the 13 structures already approved for demolition in addition to the additional five structures that have also been identified for demolition. 3

Thank you for your assistance.

Very truly yours,

Ivan L. Hopkins

Ivan L. Hopkins
Executive Director

/ch

11600 Air Base Road • P.O. Box 10 • Adelanto, California 92301 • (619) 246-8606

Response to comments by Ivan L. Hopkins, Adelanto-George Air Force Base Re-Use Authority

Response to Comment 38: The proposed building demolition package has been canceled.

Southern California Edison Company

12353 HESPERIA ROAD

VICTORVILLE, CALIFORNIA 92392

RON BRITTEN
AREA MANAGER

TELEPHONE
(619) 951-3237

February 12, 1990

Captain Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

SUBJECT: Closure of George Air Force Base
Environmental Impact Statement

Dear Captain Cassidy:

The Southern California Edison Company appreciates the opportunity to review the subject E.I.S.

The EIS discusses the usage of electricity decreasing with the closure of the base with minimal electrical requirements for minor maintenance, etc. The Southern California Edison Company will continue to provide power for base operations. Also, the substation located on the base provides power to the hospital and elementary school located on the base as well as pumping for the Cal-Nev fuel pipeline operation.

Edison wishes to preserve its current rights to the substation site as well as the 33kV power line which provides power to the substation. 39

In the future, if the base property is disposed of by the federal government, Edison will seek the opportunity to purchase the land necessary to ensure continued operation of the substation. 40

If you have any questions regarding this matter, please contact me.

Sincerely,

Response to comments by Ron Britten, Southern California Edison Company

Response to Comment 39: Rights-of-Way, easements, etc., will be maintained until Base closure (and afterwards if a new user is not in place). Transfer of facilities is a reuse issue that will be explored in a subsequent EIS on Base reuse.

Response to Comment 40: This is a reuse issue that will be addressed in a future EIS.

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC 20330-1000

OFFICE OF THE ASSISTANT SECRETARY

December 20, 1989

TO: ALL INTERESTED GOVERNMENT AGENCIES, PUBLIC GROUPS AND INDIVIDUALS

Attached for your review and comments is the Draft Environmental Impact Statement (EIS) for the Closure of George Air Force Base, California. The document is provided in compliance with the regulations of the President's Council on Environmental Quality.

The review and comment period ends February 13, 1990. Please forward any comments to:

Capt Wilfred Cassidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542
Telephone: (804) 764-4430

GARY D. VEST
Deputy Assistant Secretary of the Air Force
(Environment, Safety and Occupational Health)

1 Attachment
Draft EIS

2/24/89

Please remove us from your mailing list.

41

GREENBELT ALLIANCE
116 New Montgomery St. #640
San Francisco, CA 94105
(415) 543-4291

Response to comments by the Greenbelt Alliance, San Francisco, CA (letter missing; the Greenbelt Alliance requested that they be removed from the mailing list for the Closure EIS for George AFB).

Response to Comment 41: Thank you for your review of this document. Your name has been removed from the mailing list.

February 11, 1990

Captain Wilfred Cassidy
Hq TAC/DEEV
Langley AFB, VA 23665

Dear Captain Cassidy,

Regarding the EIS for George AFB, California, I would like to express my chagrin, as a military retiree, over any loss or lessening of base services to the local retired population.

We retired in this area because George Air Force Base could provide hospital, base exchange, commissary, and recreational services that we were led to expect on retirement.

Whatever you can do to save our retirement facilities and services for us would be greatly appreciated.

42

Sincerely,

Alan R MacLaren

ALAN R. MacLAREN
USAF (Ret)

19463 Roanoke Rd
Apple Valley CA 92307

Response to comments by Alan R. MacLaren, USAF (Ret.)

Response to Comment 42: Unfortunately, the closure of George AFB is mandated by law. As described on page 4-7 of the Draft EIS, impacts to retirees is one of the chief impacts of closing George AFB.

Capt Wilfred C ssidy
HQ TAC/DEEV
Langley AFB, VA 23665-5542

Capt Wilfred Cassidy:

I read the draft on closure of George AFB. I am sure a lot of thought and investigation was put into the phamplet, also a lot of money.

However, the point has been missed entirely. Who are the civilians that made the decisions to uproot thousands of Americans? They did not even mention a single base in their states. Why?? Why was it done undercover? Why did they say the BIGGEST reason was that they were afraid a plane from LAX would hit a plane from George. This is ridiculous. Everything is being covered up.

I have talked to numerous people in this area. NO ONE wants the base closed. Why did civilians make the decision - why did they not take a vote, why did they not have Congress do the footwork. Just whose idea was it?

As far as noise, there isn't any. I lived on the base for two years. And have lived off base for17 years. If, which is seldom, I hear the jets, I, like everyone else feels security.

43

The base brings class to this area. There has always been great communication between George and the High Desert. The jets can fly 365 days a year in this area. Mountain Home, about three months. Close Mountains Home and you will save money. Don't those businessmen know that our runway was extended, we have a beautiful new hospital, just got new computors, right now they are puttting new roofsson base housing. The military spends a lot of money in this area. If we lose the base, our economy will go zilch.

I work at one of the two local hospitals. We are filled to capacity with waiting lists. We NEED the George Hospital - it runs very smoothly. Also, the commissary has improved immensely. People (military and retirees from all over) use both. The civil service people will just go to March and bump their people because of senority, or take a loss in their life savings and move. Why don't these wonderful consultants close Clark AFB? We pay millions to keep our base there, and the money is somewhere in Switzerland and in Imelda's shoes. She sure is living high on the hog - where did she get the dough? I saw atrocities over there that would have closed this base in a minute, if it had happened at George.

If you knew the fights that were going on over who gets the base, you would be appalled. Although I am sure the wonderful consultants already have it mapped for whatever THEY WANT. A railroad, prison, or drug rehabilitation. Or AN AIRPORT - JUST WHAT THEY DIDN'T WANT. NONE OF IT MAKES ANY SENSE. TALK ABOUT [illegible]. JUST REMEMBER, IF IT WORKS, DON'T FIX IT'. I MAY BE [illegible] BUT I DO HAVE SOME SENSE. IF YOU THINK THE COMMUNIST COUNTRIES ARE GOING TO LAY DOWN AND PLAY DEAD, YOU BETTER THINK AGAIN. We have always had wars, big and little, my family has been in them every time, please, don't close ANY base, you will regret it.

Sincerely,

John Mansfield

Response to comments by Joan Mansfield, Private Citizen

Response to Comment 43: Your comments have been noted. The actions of the Defense Secretary's Commission on Base Realignment and Closure (from legislative requirements in the Base Closure and Realignment Act; Public Law 100-526) have been controversial, but are beyond the scope of this EIS. Hence, the decision to close George AFB has been made. Impacts of closing George AFB are discussed in the EIS.

The following seven comments were made during the public hearing on the Draft EIS that was held on January 30, 1990, in Victorville, CA. A copy of the transcripts are included after the responses.

Response to Comment 44 (transcripts): The source of the number of military retirees living in the local area (2,350) is the George AFB "Economic Resource Impact Statement for Fiscal Year 1988." This reference is cited in Chapter 7 of the Draft EIS under the heading "ERIS, 1988." The Department of Defense's statistical report on the military retirement system (dated September 1989), shows 12,394 retired military personnel living in the 923XX zip code; an area that includes Fort Irwin and Barstow, as well as George AFB. The George AFB hospital has about 10,000 active records for military retirees and their dependents. Hence, the number of military retirees that could be affected adversely by the closure of George AFB is greater than that reported in the Draft EIS.

Response to Comment 45 (transcripts): See response to comment 7.

Response to Comment 46 (transcripts): This is a reuse issue that will be addressed in a future EIS.

Response to Comment 47 (transcripts): Comment noted.

Response to Comment 48 (transcripts): See response to comments 6 and 36.

Response to Comment 49 (transcripts): See response to comment 7.

Response to Comment 50 (transcripts): The decision to close George AFB has already been made through Congressional passage of the Base Closure and Realignment Act (Public Law 100-526).

PUBLIC HEARING

GEORGE AIR FORCE BASE CLOSURE

DRAFT ENVIRONMENTAL IMPACT STATEMENT

VICTORVILLE, CALIFORNIA

JANUARY 30, 1990 -- 7:00 P.M.

ORIGINAL

JERI McCLURE
Shorthand Reporter
15020 Kinai Road
Apple Valley, CA 92307
(619) 242 5180

VICTORVILLE, CALIFORNIA; TUESDAY, JANUARY 30, 1990, 7:00 PM

COL. MC SHANE: Good evening, ladies and gentlemen. We'll go ahead and get started, I think. If any other folks just wander in, we'll let them be seated and take care of them later on. My name is Mike McShane, and I'm a full-time Military Trial Judge for Air Force courts-martial. I have been designated by the office of the Judge Advocate General in Washington as presiding officer for tonight's public hearing upon the Draft Environmental Impact Statement. This public hearing is being held in accordance with the National Environmental Policy Act implementing regulations for the Act, and the Base Closure Realignment Act, Public Law 100-526.

The Air Force has prepared and distributed in accordance with applicable regulations a Draft Environmental Impact Statement addressing the impacts of withdrawing troops and equipment from George Air Force Base. This Draft Environmental Impact Statement does not address final disposition or reuse of the Base. I am not here as an expert on this Draft Environmental Impact Statement, nor have I had any connection with its development. I am not here to act as a legal advisor to the experts who will address the Draft Environmental Impact Statement. My purpose is simply to insure that we have a fair, orderly hearing and that all who wish to be heard have a fair chance to speak.

Let me just take a few moments to explain how tonight's hearing will proceed. This is not going to be a

debate nor a referendum for vote upon the action itself. This informal hearing is intended to provide a public forum for two-way communications about the Draft Environmental Impact Statement.

The first part of the hearing calls for you to listen carefully to what the expert has to say as you are briefed on the anticipated environmental consequences. After the briefing, you will be able to ask questions to clarify any points made in the briefing or in the Draft Environmental Impact Statement itself.

The second part of the hearing is for you to tell the Air Force what you think, to give the Air Force the benefit of your knowledge of the local area affected by the action and any environmental hazards that you perceive.

As you came in, you should have been asked to sign in and asked if you wanted to make a statement during this hearing. After the speaker is done and clarifying questions have been asked, we will take a short break. I will collect the cards of those who want to speak, and when we get back from the break, I will recognize members of the public for the purpose of making comments about the action. Don't be shy or hesitant about making a statement. This is an informal hearing, and your comments are important. I want to help insure that all who wish to speak have a fair chance to be heard, so please help me enforce the following ground rules:

First, only speak after I recognize you, and please address your comments to me.

Second, speak clearly and slowly, starting out with your full name, address, and the capacity in which you appear -- that is, as a public official, a designated representative of a private association, or as a person speaking solely in his or her own behalf -- so that our court reporter, Mrs. Jeri McClure, who has to make a verbatim record of these proceedings, can do her job professionally.

Third, your statements should be limited to five minutes, and that rule will apply to everyone, including individuals, public officials, and designated spokespersons of private groups. If there is time remaining, and I suspect there might be, after everyone has had an opportunity to speak, I could recall anyone who wishes to make additional comments.

Fourth, please honor any requests from me that you see speaking.

Fifth, please do not speak while another person is speaking. Only one person will be recognized at a time.

And finally, there will be no smoking during the hearing.

I would appreciate your cooperation with all of these ground rules. If we do run out of time before everyone gets to speak, you are invited to fill out a comment sheet. You will note that statement can be submitted at any time prior to 13 February 1990. You can mail them to the address that is listed on the handout you got when you came in. Regardless of whether you put your statement on the record tonight or mail it in later, it will be carefully considered

and made part of the record in these proceedings. It will have equal weight and receive the same careful consideration whether made during tonight's hearing or submitted later on.

I would like to thank everyone who turned out tonight. Your presence here is commendable in that it reflects a great interest in your community and in those things which are important to it. Let me assure you that your interest is the primary purpose for us being here.

Now, it is my pleasure to introduce Colonel Dick Cole, the Director of Plans for the 831st Air Division. He will brief the Closure and Realignment action tonight. Also up here we have Denise Caron. She is the Chief of Environmental Planning and Compliance at George Air Force Base. Mr. Ed Oakes, who is from Science Applications International Corporation, the group which prepared the Draft Environmental Impact Statement. And Captain Will Cassidy, who is the Headquarters TAC Representative.

Colonel Cole, you may proceed.

COL. COLE: Thank you, Col. McShane.

I hope you can all see this, ladies and gentlemen. As you came into the room, on the table here there are copies of these briefing slides which I am about to show you if you wish to take them. I'm going to take this opportunity to give you the history of how we got to where we are this evening and where we are going from here.

The Commission, Base Realignment and Closure Commission, which recommended to the Secretary of Defense and also to Congress to close George and 85 other locations, or

installations, was formed on the 3rd of May '88. The Public Law governing their actions was passed on the 24th of October and contained some very interesting parts which will have some dynamic impacts, different than the traditional closing of military installations in that in this particular case, the Secretary of the Air Force is the Federal Disposal Agent for closing Air Force Bases and not in General Services Administration and that the Environmental Impact Statement must be completed prior to starting closure actions. And also, when decisions were made, they will not be anywhere discussed or analyzed and preclude examining alternative actions to closure. So that's why we don't examine alternatives anymore. Because it's been recommended and voted by Congress and is now Public Law.

Back on 29 December '88 they announced their findings. You may recall that, when realignment went through at George. So 86 installations will be completely closed, 5 partials, and 54 realignments.

Now, previous actions which were covered by separate environmental assessments at George were the consolidation of our two Bases and the moving of Air Warrior to Nellis Air Force Base. Both of those actions are now history; they have been completed totally.

Our schedule at George is the next thing you will see, and in your Statement, the Environmental Impact Statement here, you will notice when we talk about the 27th Tactical Air Support Squadron we speak of their moving to Davis-Monthan, and that's what the plan was until the

FY 90 Force Structure Proposal was made today. And now we will inactivate the 27th Tactical Air Support Squadron in place at George. And that's the terms of the Fiscal Year 90 Force Structure Proposal.

Then the 35th Tactical Fighter Wing will move as scheduled to Mountain Home. This aircraft will relocate from here from October of '91 to June, thereabouts, '92. And then beginning in '92 until closure in December, we begin the obligations of the Caretaker Force, of the size to be determined. The EIS says one hundred. That's an arbitrary figure. Whatever it takes to keep the buildings maintained and ready for the next user.

Specific Environmental Impact Statement actions. As we look through the timetable, it began back in February of '89. Then we had our scoping meetings here in Victorville in March of '89. Captain Cassidy first came here then. It was announced then that SAIC would perform their monumental task that they have so far of preparing the Draft Environmental Impact Statement. It was filed with the EPA in December. We began our 45-day public comments period on 29 December and it will continue to the 13th of February.

So until the 13th of February, if you get a postmark on your comments and mail them to Captain Cassidy, it will be studied in this EIS.

The public hearings, of course, are tonight, as announced earlier. The target date for the final EIS to be filed with the EPA is the 6th of April, with a release date right now targeted to be 14 May. There will be some

flexibility in times, but we are trying to keep right on schedule for release on the 14th of May.

Now, the next part of this briefing covers a summation of several points in the EIS itself. In the Executive Summary, there are many expected impacts of Base closure, whether they be of the beneficial, adverse, or no impact type.

The first, naturally, in this particular case when we talk about closure only, benefits outweigh, if you will, adverse impacts. I'm not going to read all of them. They are very carefully laid out in the document itself, and in the Executive Summary of that document. I'll just give you a chance to look them over here.

Now, the adverse affects, they all boil down to one fundamental point, which is: The retirees who have retired and have chosen to live in this area are going to be out a military facility or a military hospital here as well as anybody who is eligible for military health care benefits. That is the one large, far-reaching adverse impact in this Closure EIS.

Other associated impacts are these which the results will either be no impact or some beneficial impacts.

That concludes actions that are ongoing at George Air Force Base now. And I'll address those again in another way in just a moment in the next part.

Now, there will be a second EIS, the Reuse EIS, which will take up where Closure, this EIS, leaves off. That second EIS will cover final dispositon of Base property and

the long-term impacts of the Base Reuse Plan which is now being developed by the DEPA and Base Reuse Committee. When all that comes together and is all put in, we will have another one of these hearings on the second Reuse EIS.

Now -- bring that down just a little bit, please. Thank you very much.

You will see there is no impact in the study on Geology or the Installation Restoration Program. I'm not going to try and run through all the activities so I spelled them out. But every Air Force Installation has an Installation Restoration Program where we do our very best by law to bring back the Installation to the state it was in before we took it over. That was our promise to the community and the deal we have with all the communities before any Base will be closed is that all environmental hazards that have been accumulated over the years will be addressed and remediated. So it is authorized by CERCLA and amended by SARA.

But I have spelled those out for you. We are investigating and evaluating suspected contamination sites. They will be remediated, and funding is either provided by our friends up at Tactical Air Command, Captain Cassidy's folks, or by the DERA, Defense Environmental Restoration Account.

I'll just leave that up so you can see it. So I had that one in here twice.

Now, that basically summarizes what is contained in this very lightly documented -- this briefing that I have

just given you is strictly as brief an overview as you have ever been given.

How many of you in the room have had an opportunity to read this document in its entirety? Fine. And there are still extra copies here tonight if anybody wants one. I think most all agree as we read through this Draft it is very comprehensive and covers much territory.

So this will be the end of my presentation at this time. We will get down to questions.

COL. MC SHANE: Thank you, Col. Cole.

Are there any questions for Col. Cole or for any of the other panel members about the briefing or about the Draft Environmental Impact Statement itself? We will take questions at this time and I'll take your comments a little bit later. Any questions at all or clarifications?

Yes, ma'am.

JUDITH PFEFFER: Pardon me. I walked in a little bit late. I'm looking back on Closure Schedule, April to June, 1990. The 27th Task inactivated in place. Does that mean it will not be moving to Arizona?

COL. MC SHANE: Col. Cole, can you address that?

COL. COLE: I think you were just walking into the room, but the force structure changes made for Fiscal Year 90 will be discussed yet. It has been decided that the 27th Task that we have here at George will not be needed by the Air Force. Therefore, it will be unnecessary to move the 27th Task. We're just not going to use the name any more.

We'll determine -- we'll be told what to do, but we know that Task is not going to be.

COL. MC SHANE: Could we have your name for the record, please?

JUDITH PFEFFER: Judith Pfeffer, the Daily Press here in Victorville.

COL. MC SHANE: Thank you, ma'am.

Another question, sir? Your name, please?

VICTOR DVORAK: My name is Victor Dvorak. And there was mention -- and it may be in the full report which I haven't read -- but the hospital being the only impact on retirees. Do we bring up the Commissary in any way, or am I missing it?

COL. COLE: Yes. It was -- we talked about other related Base support activities, BX, Commissary, child care center -- any of the facilities which are open to retirees, which includes all the clubs. They just won't be here, and that is in this.

VICTOR DVORAK: Thank you.

COL. MC SHANE: Yes, ma'am.

PEGGY SARDER: I'm sorry. I was looking at the Beneficial Impacts as described, and there are a number of things, reduction of noise and the lengthening of life of the wastewater treatment facility and things of that nature. And I look on the second Reuse EIS Statement and I don't see anything addressed that has to do with those environmental issues. And it would seem to me that the reuse, whatever it is or they are, would also necessitate the use of certain

facilities and the other things that are talked about here. Is that ever going to be addressed?

COL. MC SHANE: Col. Cole?

COL. COLE: Yes, it will.

Do we need an identification?

COL. MC SHANE: Yes, ma'am. Could we have your name?

PEGGY SARDER: I'm Peggy Sarder. I'm here on my own, although I'm a member of the Victorville City Council. I'm not here on their behalf. I just want to ask a question.

COL. COLE: Let me try and rearticulate this. This particular Environmental Impact Statement is directed at all activities related to and up through the closure of the Base. Then, TAC will again set up and will do another separate EIS, which will address reuse of the Base. So if it was -- if this was the very end of the line for George, we're just going to fold up and return to desert environment. That's why all the impacts are listed as beneficial, because there will be no more noise. There will be no one running around doing war games. That will be the end of things, and in that respect, all the beneficial environmental impacts will be reduced to zero. That's the baseline of this study.

Now, when we do the Reuse, there will be a different baseline and we will have to start all over with whatever users come onto the Base and what their charges will be to protect the environment in this community.

Does that clarify it?

PEGGY SARDER: Yes.

COL. MC SHANE: Any further questions at all?

MERLE SNYDER: I have one, sir.

COL. MC SHANE: Could I have your name, sir?

MERLE SNYDER: I'm Merle Snyder. Now, they mention about the pros and cons of closing the Base. At one time I heard that this Base was declared a permanent Base. And due to that fact, well, they put in the new hospital is one reason. And also they put in a lot of new enlisted men's barracks. I don't know about the officers, but I know there's about a half dozen enlisted men's barracks. And what else is new, I don't know. But I would think that there's several million dollars that have been sunk into the Base due to the fact that they once declared it a permanent Base. Now, why they take a permanent Base and change it to closure, I'm curious about that.

COL. MC SHANE: Col. Cole or another panel member?

COL. COLE: Yes, sir. I hear your comments loud and clear. That's been an agonizing cry ever since the announcement of George and other Bases was announced.

But tonight, the focus has to be on comments on the EIS portion of it. The fact is, closure is no longer debatable. And it's history now. We have to move on and cover it. Some of these things will be brought up again, I know, in the Reuse EIS, as the community comes forth with reuse plans and they begin to address what to do with these items. But it's over and done with as far as to pass

judgement on what the Commission did. And Congress voted on it, the Secretary of Defense accepted it, and it's been that way ever since they did it back in '89.

That's probably not a good answer to your question, but that's the only answer there really is. We are no longer working on any plans -- we never have worked on any plans. From the day that it was announced that George -- that Congress decided not to vote to try to save any of the Bases, we just pressed on right there and began to work on the EIS and get ready to move out.

COL. MC SHANE: Could I have your name, sir?

MERLE SNYDER: Merle Snyder.

COL. MC SHANE: Thank you.

Another question?

VICTOR DVORAK: Victor Dvorak again. In some of the literature put out on the impact, a figure of two thousand five hundred -- correct me if I'm wrong -- was used as retirees and people authorized to use hospital, Commissary, and so forth. I have a question for the Colonel on where that figure came from. And if it didn't come from the figures in the Pay Centers, I would suggest that a list by zip codes be requested from the Pay Centers and give us a figure of what we really do have in this community. 44

COL. COLE: Duly noted. And for sure the figure two thousand was in the report. Whether it came from finance records, from Denver, or just what, I don't know. We will take note of that and, indeed, we will research that again. And it will be changed if it needs to be changed.

That's what we're really calling this a Draft for. I would only imagine that the figures probably are larger than what we have around here. Now we will work with you on that also to get a better figure if you have a better way to do it.

VICTOR DVORAK: I think if we went to the Pay Centers by zip code we could --

COL. COLE: I believe that's one of the means, I don't want to say here, but that's one of the methods in which they have records. And that's not always totally accurate. However, for the most part, that works. If anything, you would probably want to say that the figure is low; right?

VICTOR DVORAK: I would guess that we are less than -- two thousand five hundred would be less than one half of what we have in this community. 44

COL. COLE: Okay.

COL. MC SHANE: Thank you very much.

Any other questions? Sir.

DON BRADACH: I have a question. My name is Don Bradach, 14698 Nokomis, Apple Valley. And I have a question in reference to page 4-10, item 4.12.8, Asbestos. And I just want to clarify, because it seems like the language here is a little bit of double talk and that it's not stating what they're going to do specifically. 45

I believe that the public institutions are required to have a specific plan on removal or abatement of asbestos. And, you know, I'm just kind of curious as to what the Air

Force plans to do with regards to abatement specifically.

COL. COLE: I'd be glad to answer that. I'll get the ball rolling, and then if Denise wants to add anything, she can.

The Air Force actually has very clearly articulated on the 86 closing installations that there will be a one hundred percent survey of all buildings to determine the extent of asbestos in that building. Any friable -- that's a word for loose, dangerous, extremely hazardous that would penetrate the walls. That kind of asbestos that is found in the survey will be removed. If the asbestos is harmless, if it's encapsulated, if it's there, we will furnish all those records and are in the process of getting that done now to turn over to the Reuse Committee so that they will know every square inch of the Base where there is asbestos where ever we found it.

This is quite a thorough survey that has to be done, and we're doing that survey now. But no, all asbestos will not be removed just because it's there. It will be reported as to where it is and if it is in bad condition or dangerous condition, then it will be removed.

Anything you want to add to that?

DENISE CARON: I can't really say anything more than that.

COL. COLE: But that was a promise made, and we will keep that promise. But we're just not going to go through and take out every bit of asbestos on the Base. No.

COL. MC SHANE: Another question, sir?

VICTOR MAHNKE: Mr. Mahnke. I'm confused. In other words, you won't be taking down all the -- you won't make it back to the desert when you came here? You will leave the buildings here?

COL. COLE: Yes, sir.

VICTOR MAHNKE: I was hoping you could move some of the people from the East maybe out here. And maybe you could send the Army Corps Engineer out here to put roads, curbs, and gutters in somewhere. We need manpower, trained people. And maybe you could get a new program going up in Washington that benefits the West Coast.

Adelanto needs a supermarket, a bank. Open up the Base to the public for a competition. 46

COL. MC SHANE: Further questions?

VICTOR DVORAK: Well, another comment in another area. And I'm sorry and apologize if I didn't speak loud enough for you to hear me in the back a while ago. I was thinking forward. I'm still Vic Dvorak.

For years I've chaired the Veterans Employment Committee, and I'm always working with the Reuse Committee representing veterans. Now, we had a goal this year in the desert area of placing, through the local veteran reps, the Employment Development Department, and the Disabled Veterans Outreach Program, six hundred veterans in this area. And I think we're going to meet that goal.

Now, a part of that six hundred comes through the VRA, Veterans Readjustment Act. And I would estimate that ninety of that six hundred are direct placements. This is 47

some of the better-paying jobs that we've had in the High Desert for veterans. And with the closure of George, we're going to lose about half of that ninety figure that I estimate to be placed at the various places of the High Desert. So there's another impact we're talking about. And I think that's about what I have to say on my subject. Thank you. 47

COL. MC SHANE: Thank you.

If we don't have any other questions at this point, I'd like to go over some of the other procedures we'll follow tonight for the benefit of those who came in after we got started.

You were invited to sign in and fill out a speaker's card when you arrived. If you want to speak and have not yet filled out a card, please do so in the next few minutes. Regarding the making of a statement tonight, I'll call on elected public officials first, if we have any here; and then representatives of organizations; and then private individuals.

If you do not wish to make a public statement, you may turn in written comments after this meeting or send them to the address which is provided in the handout you got when you came in.

If I could -- is Captain Titan still here? He was in charge of my list of individuals who wanted to speak.

Okay, I think at this point I've got four individuals who indicated a desire to speak tonight, to comment on the -- make comments about the Draft Environmental

Impact Hearing, the Draft Environmental Impact Statement.

I'd like to call first on Baxter Williams. If you would please step up to the microphone so that everyone can hear your comments.

BAXTER J. WILLIAMS: Thank you, Col. Mc Shane, distinguished members of the panel. I'm Baxter Williams, interim Director of the Victor Valley Economic Development Authority representing the Authority's Chairman, 1st District County Supervisor Marsha Turoci.

As the four-member consortium of municipal and county governments responsible for planning the civilian reuse of George Air Force Base, the VVEDA wishes to note its concurrence with the single adverse impact identified in the EIS, that being the closure of the Base hospital and the resulting effects on military retired personnel and their dependents.

Soon after the announcement of Base closure, our members recognized that the loss of the hospital would severely impact health care services in the Victor Valley and mean substantially increased travel and significantly higher medical services for those who are currently receiving in-patient and out-patient treatment at the Base. Correspondingly, reuse of the hospital as a medical facility has been and will continue to be a priority concern of the Authority. And in the months and weeks ahead, we will continue pursuing and negotiating for potential reuses of that facility which would maintain it as a medical facility.

Further, we wish to recognize in many other areas

the Draft Closure EIS is a comprehensive document which will be of value to the reuse effort. But in the interest of time, we shall not comment on the many findings with which we concur. Rather, we will note for the record those general observations faced in the evaluation with which we take difference. Principal among these would be the treatment of the approximately 63 existing underground storage tanks, most or all of which are single-wall type requiring removal and/or replacement. Assuming a modest cost estimate of ten thousand dollars for removal only, not including replacement or possible treatment of contaminated soil, our consortium could easily be confronted with an expense in the vicinity of six hundred thousand dollars, which it is ill-funded to handle and which it does not feel responsible to assume. 48

Second, but potentially of much greater evidence, and this has been addressed earlier tonight, is the ever-present concern for asbestos. The subject area is dealt with appropriately in terms of assuming proper identification. However, we are not completely comfortable with the provisions made for corrections and for acceptance of financial responsibility associated therewith. 49

From the brevity of our comments in these areas of concern, it is apparent that our assessment of the Draft EIS is not yet exhaustive nor fully conclusive. During the next two weeks, we will be further refining our concerns in these areas and submitting written comments in accordance with the February 13th deadline.

The Victor Valley Economic Development Authority

takes pride in the positive relationship which has been established with the Department of Defense, the Department of the Air Force, and with the fine personnel at George Air Force Base. We take pleasure in the cooperative spirit in which the closure and beneficial reuse of the Base are being approached. And we appreciate the assistance which we are receiving. Further, we will appreciate your attention to the areas which we have identified as being of concern. And pending our submittal of written comments, we will solicit your agreement that these areas need to be more fully and equitably assessed.

Thank you for this opportunity, and we look forward to the continuation of the positive relationship which we believe has been established.

COL. MC SHANE: Thank you, sir.

I would next call on Victor Dvorak.

VICTOR DVORAK: I think that -- Colonel, I think I've covered everything in my comments that I had in mind. Thank you.

COL. MC SHANE: All right. Thank you, sir.

Next, Victor Mahnke.

VICTOR MAHNKE: I just want to thank you for all that you have done and I hope you can do better. And you have the technology and education. I hope you do the proper thing for the people and for the society.

I suppose that most of the people out here tonight are people that have to move. Some of the Air Force people will have to sell their homes. And I just was hoping with

the technology and everything else that really we'd turn it over to the public. Maybe have a competition; maybe auction it off to the highest bidder. Have a supermarket for the public. Adelanto needs one. And that hospital, I'm glad they're going to work toward that. 46

COL. MC SHANE: Thank you, sir.

Vic Vargas.

VIC VARGAS: My statements do not fall within tonight's format, so I'll decline. But I want to thank you for the opportunity.

COL. MC SHANE: All right. Thank you, sir.

That was all the individuals who filled out a speaker's card. I'll certainly invite anyone else who wants to make a comment about the Draft Environmental Impact Statement or about the briefing to do so at this time.

Anybody else at all? This is your public hearing and your opportunity to make your comments.

Yes, sir?

MERLE SNYDER: On the news tonight -- you probably heard it. It was on today. I don't think it was on yesterday. But this one Democratic Congressman, he said he's going to call for a new study, a new Commission, to re-evaluate all these Bases. He said this present study has been strictly for the Republicans and the Democrats haven't had anything to say about it. So I just wondered if he would get a new study made, and if he does, maybe it would be a better one than the last one they did. Maybe it will take more time and be more accurate. And maybe George Air Force 50

Base will have a change, plus some of the other Bases, will have a chance of staying open. 50

COL. MC SHANE: Was that Mr. Snyder?

MERLE SNYDER: Yes.

COL. MC SHANE: Thank you.

Any other comments? I'd remind you that you do have until 13 February 1990 to submit written materials to be included in the transcript of this hearing. And those written statements will be fully considered and addressed in the final Environmental Impact Statement. Once again, oral and written statements will be afforded equal weight.

Officials of the Air Force appreciate your efforts to come out tonight and contribute your views to this public hearing. We thank you for your courteous attention. Please be assured that the Air Force will carefully consider each viewpoint raised here when the alternate action is taken.

Thank you again. This public hearing is adjourned at nineteen forty hours.

VICTORVILLE, CALIFORNIA; TUESDAY, JANUARY 30, 1990; 7:00 PM

PUBLIC HEARING)
)
GEORGE AFB CLOSURE) REPORTER'S CERTIFICATE
DRAFT ENVIRONMENTAL IMPACT STATEMENT)
)

I, Jeri McClure, Shorthand Reporter, do hereby certify that the foregoing pages, 1 through 22, inclusive, comprise a full, true, and correct transcript of the proceedings reported by me on January 30, 1990, in the above-entitled matter.

Dated this 5th day of February, 1990

Jeri McClure
Shorthand Reporter

APPENDIX B

REVISIONS AND CORRECTIONS TO THE DRAFT EIS

Revisions and corrections to the Draft EIS on the closure of George AFB are listed in this appendix. Minor editorial changes to the Draft EIS are not indicated below because these changes have not affected the meaning of the text.

REVISIONS TO DRAFT EIS

On January 29, 1990, it was announced that Davis-Monthan AFB in Arizona would not receive any of the OV-10 aircraft from George AFB as stated in the Draft EIS. Instead, the OV-10 aircraft at George AFB are to be inactivated. This change has been made throughout the Final EIS. The pages in the Draft EIS where this change is reflected are as follows: page i, under "Action;" page ii, paragraph 1; page 1-3, second paragraph under Section 1.3; page 2-1, first paragraph under Section 2.1; Table 2.1-1, column 4; page 4-6, fifth, sixth, and seventh paragraphs.

The Air Force expected that some of the World War II buildings at George AFB would be demolished in preparation for Base closure. George AFB submitted a justification package to Air Force HQ for final approval for each building or structure requested for demolition. Since issuance of the Draft EIS, the entire building demolition program has been canceled. This change has been made in the Final EIS. The page in the Draft EIS where this change is reflected is 2-3.

TEXT CORRECTIONS TO DRAFT EIS

Page iv, paragraph corresponding to "Hazardous Waste": The word "Storage" preceding the word "Yard" in line 2 has been deleted.

Page 1-4, third line from top of page: "...is currently being..." prepared by George AFB has been changed to read "...has been..." prepared.

Page 2-1, second paragraph, line 1: The correct number of F-4E/G aircraft is 92, not 94. This change has also been made on Table 2.1-1 on page 2-2.

Page 2-2, Table 2.1-1: In column 5, the date "June 1992[(2)]" has been moved to column 6 under "Oct. 1991." In footnote 1, second line, "first" day of the quarter has been changed to read "last" day of the quarter.

Page 3-14, fourth paragraph, last two sentences: The last two sentences have been deleted.

Page 3-21, last two lines: "...pass through the main gate..." has been changed to read "...use one of two gates..." on Air Base Road.

Page 3-22, first full paragraph: Second sentence has been replaced by "The George AFB hospital has about 10,000 active records for military retirees and their dependents."

Page 3-22, third full paragraph: The following sentence has been added: "The Department of Defense's statistical report on the military retirement system (dated September 1989) shows 12,394 retired military personnel living in the 923XX zip code; an area that includes George AFB, Fort Irwin, and Barstow."

Page 3-37, third full paragraph under Section 3.11.1, line 7: "...miles beyond the boundary of the Base..." has been changed to read "...miles beyond the current boundary fence of the Base..."

Page 3-38, last paragraph, line 3: "June" 1990 has been changed to read "September" 1990.

Page 3-39, second paragraph, line 3: "...high..." levels of radioactivity has been changed to read "...elevated..." levels.

Page 3-39, third paragraph, line 5: "...enhanced bioreclamation..." has been changed to read "...being determined through feasibility studies..."

Page 3-41, third full paragraph: The second sentence has been deleted and replaced with the following: "Most of the USTs are single-wall construction. Approximately 48 percent of the tanks contain diesel fuel; 25 percent contain JP-4 fuel; 18 percent contain unleaded gasoline; and the remaining 9 percent contain contaminated fuels, waste oil, and one tank contains naphtha."

Page 3-41, between fourth and fifth full paragraphs: The following paragraph has been inserted: "An Underground Storage Tank Management Plan for George AFB will be completed in 1990. Funding for the program is expected sometime in 1990 or early 1991. The plan includes an inventory of tanks on Base, their construction, and their capacity. The plan will include recommendations on whether the USTs are required for current operations. All active tanks will be leak tested to make sure they are not leaking contaminants into nearby soils."

Page 3-42, between fourth and fifth paragraphs under heading "asbestos": The following two paragraphs have been added: "The Air Force policy for management of asbestos on Air Force Bases that are closing is described in Appendix C. In general, asbestos will be removed if (a) the protection of human health, as determined by the Base Bioenvironmental Engineer, requires removal (e.g., exposed, friable asbestos within a building), (b) a building is unsalable without removal, or removal prior to sale is cost-effective, or (c) a building is, or is intended to be, used as a school, child care facility, or hospital."

"If none of items mentioned in the preceding paragraph apply, the asbestos will be managed using commonly accepted standards, criteria, and procedures to assure sufficient protection of human health and the environment. Prior to the sale of Base properties, a thorough survey for asbestos (including review of facility records, visual inspection, and, where appropriate, intrusive inspection) will be conducted by the Air Force. All appraisal instructions, advertisements for sale, and deeds will contain accurate descriptions of the types, quantities, locations, and condition of asbestos in any real property to be sold or otherwise transferred outside the Federal Government. Appraisals will indicate what discount the market would apply if the building were to be sold with the asbestos in place. The final Air Force determination regarding the disposition of asbestos will be dependent on the plan for disposal and any reuse of the building. Decisions will, among other things, take into account the proposed community reuse plan for the Base. The course of action to be followed with respect to asbestos at each closing Air Force Base will be analyzed in the Disposal and Reuse Environmental Impact Statement, and will be included in the Record of Decision (ROD)."

Page 3-42, fifth paragraph: This paragraph has been deleted.

Page 3-42, sixth paragraph: The first sentence of this paragraph has been deleted. The last sentence of this paragraph, beginning with "...in accordance with regulations..." has been replaced with "...(see Appendix C)..."

Page 4-1, last paragraph, line 3: "...lead contamination..." has been changed to read "...lead and solvent contamination..."

Page 4-1, last paragraph, lines 4 and 5: The sentence containing "...no longer be discharged with storm runoff to the outfall ditch along the northeast side of the Base" has been replaced with "...be remediated..."

Page 4-2, first paragraph, lines 3 and 4: The words "...rise in the water levels in water-supply wells..." has been replaced with "...reduction in the rate of water-table lowering..." This change has also been made on pages iii and 2-4.

Page 4-2, end of fifth paragraph: The following parenthetical statement has been added: "(this ratio is under review by the State of California)."

Page 4-3, end of fourth paragraph: The following sentence has been added: "Overall, however, the impacts to threatened, endangered, and sensitive species -- particularly the desert tortoise -- are expected to be beneficial."

Page 4-3, last paragraph (continued at top of page 4-4): Paragraph has been replaced with the following two paragraphs: "A biological assessment of the impacts of Base closure on threatened and endangered species will be submitted to the U.S. Fish and Wildlife Survey in compliance with the Endangered Species Act (the five category-2 species will also be included). The assessment will conclude that no adverse impacts are expected to threatened and endangered species from closing George AFB."

"A biological field survey of the Base is planned for the spring of 1990. Results of this survey will be provided to potential new user(s) of the Base to help avoid and/or mitigate adverse impacts to these species from possible new uses of the Base. The species to be included in this survey are the desert tortoise and the five Category-2 species listed in Section 3.5.3. This survey is not part of the formal biological assessment under the Endangered Species Act that was described in the preceding paragraph."

Page 4-4, second full paragraph, line one: Before the date 1990 the words "...the spring of..." has been added.

Page 4-7, first full paragraph, line four: The number 2,350 has been replaced with the number 12,395.

Page 4-7, second full paragraph: The following is now the first sentence of the paragraph: "The George AFB hospital has about 10,000 active records for military retirees and their dependents."

Page 4-9, first full paragraph: The following has been added after sentence four: "When remedial actions are complete, the Air Force will monitor the sites as necessary to assure the effectiveness of the remedial action. In some cases, long-term monitoring for a number of years may be required."

Page 4-9, after first full paragraph: The following paragraph has been added: "Those IRP sites on George AFB that pose a significant risk to people trespassing on the Base after closure may be fenced and posted. Although the plans for a caretaker force have yet to be fully developed, frequent security patrols of the Base would also limit the risk of exposure to the general public.

Page 4-10, first full paragraph, line 1: The word "abandonment" has been changed to read "removal."

Page 4-10, sixth full paragraph, line three: The last part of the sentence beginning with "...regulations dealing with..." has been replaced with "...Air Force policy (see Appendix C for this policy)..."

APPENDIX C

AIR FORCE POLICY LETTER CONCERNING THE MANAGEMENT OF ASBESTOS AT CLOSING BASES

INTRODUCTION

Asbestos in buildings is managed because of the potential adverse effects that asbestos can have on human health. Asbestos must be removed or controlled if it is in a location and condition that constitutes an immediate or potential health hazard, or where removal is required by law such as for schools. The determination that an asbestos hazard exists must be made by a health professional trained to make such determinations. In the case of the Air force, this person is the Bioenvironmental Engineer. Although asbestos removal is a remedy, in many cases management alternatives such as encapsulation within a building are acceptable and cost-effective methods for handling an asbestos hazard. The keys to dealing with asbestos are knowing its location and condition, and having a management plan to prevent asbestos-containing materials that continue to serve their intended purpose from becoming a health hazard. There is no alternative to management of such serviceable asbestos-containing materials because society does not have the resources to remove and dispose of all asbestos in all buildings in the United States. Most asbestos is not now, nor will it become, a health hazard if it is properly managed.

There are no laws that are applicable to the five closing Air Force Bases that specifically mandate the removal or management of asbestos in buildings, other than the law addressing asbestos in schools (P.L. 99-5190). Statutory or regulatory requirements that result in removal or remediation of asbestos are based on human exposure or the potential for human exposure [e.g., National Emission Standards for Hazardous Air Pollutants (NESHAPS) = no visible emissions; OSHA = number of airborne fibers per cubic centimeter]. There are no statutory or other mandatory standards, criteria, or procedures for deciding what to do with asbestos. Thus, the judgment of health professionals based on exposure levels or potential exposure levels is the primary determinant of what should be done with asbestos. Apart from this professional and scientific approach, the closing Bases present the additional problem of obtaining an economic return to the Government for its property. Asbestos in facilities at closing Bases must also be analyzed to determine the most prudent course in terms of the cost for removal or remediation versus the price that can be obtained for the facility.

The following policy will apply to Bases to be closed or realigned (so that there are excess facilities to be sold) under the Base Closure and Realignment Act (P.L. 100-526).

1. Asbestos will be removed if:

   (a) The protection of human health as determined by the Bioenvironmental Engineer requires removal (e.g., exposed, friable asbestos within a building) in accordance with applicable laws, regulations, and standards related to public health.

   (b) A building is unsalable without removal, or removal prior to sale is cost-effective; that is, the removal cost is low enough compared to the value that would be received for a "clean" building that removal is a good investment for the Government. Prior to the decision to remove asbestos solely for economic reasons, an economic analysis will be conducted to determine if (1) demolition, (2) removal of some types of asbestos but not others, or (3) asbestos removal and sale, would be in the best interests of the Government.

   (c) A building is, or is intended to be, used as a school, child care facility, or hospital.

2. When asbestos is present but none of the above applies, the asbestos will be managed using commonly accepted standards, criteria, and procedures to assure sufficient protection of human health and the environment, in accordance with applicable and developing health standards.

3. A thorough survey for asbestos (including review of facility records, visual inspection, and, where appropriate, as determined by the Bioenvironmental Engineer and the Base Civil Engineer, intrusive inspection) will be conducted by the Air Force prior to sale.

4. Appraisal instructions, advertisements for sale, and deeds will contain accurate descriptions of the types, quantities, locations, and condition of asbestos in any real property to be sold or otherwise transferred outside the Federal Government. Appraisals will indicate what discount the market would apply if the building were to be sold with the asbestos in place.

5. Encapsulated asbestos in a building, friable or not, is not regarded as hazardous waste by the Air Force, nor does encapsulation within the structure of a building constitute "storing" or "disposing of" hazardous waste. Asbestos incorporated into a building as part of the structure has not been "stored" of "disposed of."

6. Friable asbestos, or asbestos that will probable become friable, that has been stored or disposed of underground or elsewhere on the property to be sold will be properly disposed of, unless the location is a landfill or other disposal facility properly permitted for the disposal of friable asbestos.

7. The final Air Force determination regarding the disposition of asbestos will be dependent on the plan for disposal and any reuse of the building.

Decisions will take into account the proposed community reuse plan and the economic analysis of alternatives (see paragraph 4). The course of action to be followed with respect to asbestos at each closing Air Force Base will be analyzed in the Disposal and Reuse Environmental Impact Statement, and will be included in the Record of Decision (ROD). Any buildings or facilities where the proposed asbestos plan is controversial will be addressed in the ROD, either individually or as a class of closely related facilities.

8. Because other considerations must be taken into account at Bases that are continuing to operate, this policy does not apply to them, nor is it necessarily a precedent for a policy of asbestos removal for them.